

AMERICAN VETERINARY REVIEW.

MARCH, 1896.

EDITORIAL.

THE UNITED STATES VETERINARY MEDICAL ASSOCIATION AND HER NEXT CALLING.—The United States Veterinary Medical Association has for the last few years assumed a position to which her national organization has given her a certain amount of claim in relation to the elevation of American veterinary science, and to the advancement of education in our veterinary colleges.

Through her energy, the changes made in many of our schools, from two to three years' studies, have marked a great step in her history; through the repeated suggestions made at her meetings, it is certain that the laws regulating the practice of our art owe much of the realization of the wishes expressed by the creation of Boards of Examiners in some of our States, and much can be expected from the good intentions and work of the society born from her—the Association of the Faculties of Veterinary Colleges of North America. For all of which, we believe the REVIEW can claim the greater part of the credit in their realization, as by her efforts and by *our special and repeated callings* these improvements have little by little been realized.

At the Chicago meeting in 1894, in a paper that was read on "Veterinary Education," among the suggestions made there was one asking for the creation in the United States of a National Board of Examiners—a suggestion which was dropped on account, it was stated, of the impossibility of such an organization because of the fact that State laws could not be ignored, and therefore a national board could not be created.

The author of the paper, a foreigner, who was probably not very well acquainted with the laws of this country, seemed

to realize the strength of the argument and did not insist on his suggestion, but urged the creation of local State Boards. The result is well-known to-day:—New York, Pennsylvania, Maryland and other States have since seen these Boards appointed; but, if previous to this new departure, a National Board of Examiners was not possible, it seems that to-day the difficulty exists no longer.

The step is going to take place in human medicine—why should veterinary science remain behind?

As evidence of this fact, we extract from the *Medical Record* the following editorial:

CONFEDERATION OF STATE MEDICAL EXAMINING BOARDS.

In the December number of the *Bulletin of the American Academy of Medicine*, there is published the report of a committee appointed to arrange for the organization of the State Medical Examining and Licensing Boards of this country. The report is signed by Drs. McIntyre, Watson, Paine, and Potter. It states that since the system of State Medical Licensing had been adopted so extensively, and since it is probable that a similar system would soon be adopted in all the States of the Union, it is necessary that the Examining Boards of different States should take measures for approximating, as nearly as possible, uniformity as to rating and standards of acquirements. For this purpose, a plan of organization is drawn up, consisting of a constitution, embodying nine articles. It is provided that the body shall be known as the National Confederation of State Medical Examining and Licensing Boards. The objects of this organization will be to have regular conferences of the members, the collection, compilation, and dissemination of information regarding State Licenses, and, if desirable, the adoption of regulations for guiding the work of the confederated boards. The work of the confederated boards will be largely advisory, but such work will be much needed, and we trust that the proposed organization will be successfully accomplished.

As an addition to all the good work done by the United States Veterinary Medical Association, we would suggest that our proposal made at Chicago should be taken up again by her, with the modifications that are presented to-day, and offered to us in working for the organization of a *Confederation of State Veterinary Examining Boards* similar to that which is now organized by our sister profession.

AN EXPLANATION.—The following paragraph appeared in the February *Journal of Comparative Medicine*:

We learn that Prof. Liautard intends to examine the students in anatomy the latter part of January, after which he sails for France for an indefinite stay. Prof. R. R. Bell is to take his place.

Prof. Liautard did sail for France, having completed his course of lectures for the session; but his stay in France is not to be indefinite; he has simply gone to bring Mme. Liautard to America, she having been spending the winter with relatives in Paris, and their return is shortly expected. Neither has Professor Bell assumed the functions of the Dean of the American Veterinary College, Professor Coates having been elected to act in that capacity until Dr. Liautard's return. Dr. Bell, however, will, at the beginning of Volume XX (April), assume joint control of the REVIEW with Dr. Liautard. It is expected that this acquisition will be greatly to the advantage of this journal, as he has had a large experience in literary and journalistic life.

CONDITION OF VETERINARY LEGISLATION IN NEW YORK STATE.—Scarcely ever has the adage "eternal vigilance is the price of liberty" proven more exact in its application than occurs in relation to veterinary legislation in this State. If the legislative committees of our veterinary medical associations were not constantly on the alert for the appearance of new amendments to our hard-earned laws, the original framers of the statutes would not in a short time be able to recognize the fruits of their own labors. Every little while some obscure member of the State Assembly, to gratify one or more of his constituents, introduces into that body some act which, under various disguises, seeks and often becomes a State law. And, while disinterested members are careless and allow them to pass, the father of the bill gets a little cheap notoriety for his smartness, and the thanks of the beneficiary—it matters not that the evil there sown will be more far-reaching and disastrous than can be counterbalanced by a decade of wise legislation. It is hard to explain upon satisfactory lines the composition of a Member of Assembly who would have the effrontery to perform such a service for the plaudits of such a constituency against the interests and the very life of so vast and honorable a body of men as constitute the legal veterinary profession of New York State. Yet this was done on January 16th, by Mr. C. C. Cole, in the New

York Assembly, as may be seen by the following, known as "House Bill No. 249:"

AN ACT TO AMEND THE PUBLIC HEALTH LAW RELATING TO THE PRACTICE OF VETERINARY MEDICINE.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

§ 1. Section one hundred and seventy-one of article ten of the public health law, being six hundred and sixty-one of the laws of eighteen hundred and ninety-three, as amended by chapter eight hundred and sixty of the laws of eighteen hundred and ninety-five is hereby amended to read as follows :

§ 171. Qualifications for practice.—No person shall practice veterinary medicine after September first, eighteen hundred and ninety-six, unless previously registered and legally authorized, unless licensed by the regents and registered as required by this article ; nor shall any person practice veterinary medicine who has ever been convicted of a felony by any court, or whose authority to practice is suspended or revoked by the regents on recommendation of a State board.

§ 2. Sections one hundred and eighty, one hundred and eighty-one, one hundred and eighty-two, one hundred and eighty-three and one hundred and eighty-four of article ten of the public health law, as added by such chapter eight hundred and sixty of the laws of eighteen hundred and ninety-five, are hereby renumbered and shall hereafter be designated respectively as sections one hundred and seventy-nine-a, one hundred and seventy-nine-b, one hundred and seventy-nine-c, one hundred and seventy-nine-d, and one hundred and seventy-nine-e.

§ 3. This act shall take effect immediately.

We will not here review at any length the history of the bill to which this is an amendment, further than to say that registration was first made obligatory in this State in 1886, and after keeping the books open for that purpose for a sufficient time to allow all qualified men to register, were closed in every county of the State ; but they were reopened by amendment at various times since through just such legislation as is now attempted. In 1893 the Albany law makers refused to pass an amendment to again throw the books open for promiscuous registration ; and veterinarians throughout the State rejoiced that the end of such practices had arrived. Following upon this evidence of good faith on the part of the State, the profession showed its appreciation of their action by enforcing more stringent obligations upon its own members, placing their colleges and future members in the custody of the Regents, entailing one more year's attendance and greater proficiency in the prospective student, in the very face of unprecedented national financial and commercial depression, thus

exposing our institutions of veterinary learning to great loss and sacrifice by virtue of decreased attendance.

It was not possible, under these circumstances, to have presumed that a man—if he were only casually acquainted with this brief history—and application to any member of the profession in good standing would have enlightened him—could have been found within the borders of this commonwealth who would be willing to be considered such an enemy to human progress as to allow his name to appear as father of such an act. That such a person was found simply proves that men can be secured to do any act, if within the narrow letter of the law, and without the pale of every sentiment of honor and morality.

Through the good offices of the Legislative Committee of the New York County Veterinary Medical Association, and especially of its indefatigable chairman, Dr. Arthur O'Shea, this infamous measure is at this writing apparently defeated. Dr. O'Shea not only at once repaired to the State Capital, and, with the other members of the committee, appeared before the Public Health Committee of the Assembly in opposition, but instigated a large number of metropolitan veterinarians to express their personal protests in writing to the chairman of that committee. The writer of this article did what he could from this standpoint; stirred by a righteous indignation, his communication to the chairman was as forcible as his humble ability could inspire, and we personally know many others who were equally enthusiastic in their expressions of opinion. Dr. O'Shea informs us that the committee were simply overwhelmed by the avalanche of opposition from the veterinary profession of the State. That was as it should be, and there can be no doubt as to the final outcome.

In the January REVIEW we brought to the notice of the profession an unfortunate condition of the bill exempting the legally qualified veterinary surgeons of New York State from service upon juries, whereby a clause in one of the amendments made the bill operative throughout the State with the exception of New York and Kings Counties, whose busy practitioners were still liable to summons. Dr. O'Shea, who had charge of the bill, immediately set about to rectify this

injustice, and has had a bill introduced in both the Senate and Assembly, which were referred to the Committee on Codes. The following is a copy of the amended section :

2. A practicing physician, surgeon or dentist, having patients requiring his daily professional attention, not following any other calling ; a licensed pharmacist or pharmacist, while actually engaged in his profession as a means of livelihood ; and a duly registered veterinary surgeon actually engaged in his profession as a means of livelihood.

§ 2. This act shall take effect immediately.

This bill, when passed, and there can be no question of this, as it is manifest injustice, will have to receive the sanction of the executive heads of the cities of New York and Brooklyn to conform with special legislation.

Altogether, the profession of the State has reason for congratulation upon the condition of legislative affairs, and it is greatly indebted to those who so willingly have given their time, energy, and money for the common weal.

IN calling attention to the new frost shoes of Dr. Dougherty, we hope they will be tried by those who are practicing in districts where wintry weather obliges the use of specially made shoes for horses. We have had no opportunity to test them, but we hear they have given much satisfaction to those who have.

A CORRECTION.—On page 602 of the December issue, the State Veterinary Department of Iowa is made to have come to the conclusion that tuberculosis was not contagious. This is an error ; it should read : "The conclusion was that the disease is usually not inherited."

THE VETERINARY HERALD.—We welcome the first number of this neat little periodical, edited and published by the students of the Chicago Veterinary College, with assistance from the faculty. It is well gotten up, and we trust it will have a long life.

"HOW GOLDEN-RODS MAY BE POISONOUS," is the title of a paper by Prof. H. H. Rusby, Professor of Botany at the American Veterinary College, which will appear in the April REVIEW.

ORIGINAL ARTICLES.

HEART DISEASE.

By J. A. COUTURE, V.S., Quebec.

Specially Written for the AMERICAN VETERINARY REVIEW.

CASE III.—PERICARDITIS IN A COW—DEATH.

The readers of the REVIEW may still bear in mind the caution that was given them in the November number, both by Dr. Dalrymple and myself, with regard to the diagnosis of heart diseases in the horse on account of their liability, if the practitioner is not always on his guard, to be mistaken for pulmonary diseases. The same caution has to be given with regard to heart disease in cattle, but the mistake will bear either on the digestive organs or on the pulmonary organs. And heart disease in these animals being a great deal less frequent than in the horse; on the other hand, diseases of the digestive organs being very common, the practitioner is sure to be misled and make a false diagnosis when the disease is at the outset. When one meets a class of disease every day, or almost every day, one becomes so expert in the matter that at length diagnosis is made instantaneously. Such is the case with us with regard to heart diseases in the horse, but it is an entirely different matter with regard to these diseases in cattle, which are only met with at long, very long intervals.

The case which is to be reported, besides being interesting for many reasons, will illustrate this remark:

History of the case.—I was called, on April 27, 1894, to see a young Ayrshire cow, four years old, having had her second calf about two months previously. A few days after calving, she had to walk thirteen miles to come to Quebec, where she had been sold to the Sellery convent. The day following her arrival she was noticed to breathe frequently; the seller's attention was called to this fact, but he said that it was nervousness. She gave from eight to twelve quarts of milk, and was considered to be a fairly good cow, but she was affected now and then with shivering and loss of appetite. These slight

attacks of disease did not necessitate the veterinarian's services, but the cow was looked upon as being of a delicate constitution. April 25th (two days before being put under my care), she refused her food, breathed frequently, moaned, extremities cold, the secretion of milk had ceased. Such was the information that was given to me when I made my first visit.

Clinical examination.—Temperature $105\frac{1}{2}^{\circ}$; respiration 30° ; pulse hard, strong, small, 80 per minute; the patient moaned at every expiration; rumen completely inactive, distended and sore; she moved about with difficulty; constipation. Acute disease of the lungs was at once suspected, and the chest was carefully auscultated in view of pulmonary disease only, and the heart was neglected. That was a mistake; that organ should have been as thoroughly auscultated as the lungs, and the true nature of the disease might have been discovered then and there. Nothing abnormal was heard in either lung, of course, and my attention was brought to the digestive organs. The inactivity of the rumen, its distention, the moans, the constipated state of the bowels, led me to think that it might be *gastritis, with a doubtful prognosis*. A suitable treatment was prescribed, diet to consist of a small quantity of hay only.

April 28th, the next day, the temperature was 107° , pulse 90, respiration 40, rumen still inactive. Auscultation of the chest for lung disease, negative. The same treatment was continued, and an oleaginous purgative was given.

April 29, temperature 105° , pulse 80, respiration 40; rumen began to act a little, the intestines purging. I thought that my patient was better—the appetite was improving, the movements were more easy, the eyes brighter. But the pulse and respiration were no better.

April 30, after examining my patient, I thought she was much better. The temperature 101° , pulse 70, respiration 30. The rumen had two fairly strong revolutions per minute; rumination fairly good; appetite improving. The sedatives were discontinued, the cooling mixture (alkaline) kept up. Diet—hay and small bran mash. I considered the animal

convalescent, and believed that with care in feeding the cure would be complete in a few days. The fact is, there was no improvement at all in the condition of my patient, and that the decrease of the fever and of the pain, the better appetite, were due to the commencement of the exudative process. Such apparent improvement is always present in all inflammations of the serous membranes when exudation begins. Medical attendance was discontinued. Four days after, I was called by telephone and informed that my patient was much worse, that she was swelled at the neck and chest. I was at once fixed upon the nature of the disease, and I knew that I had all the while treated a case of pericarditis for one of gastritis.

I hastened to see the cow, and found her in a pitiful state, temperature 105° , respiration 60, pulse small and weak, 90; large swelling of the posterior half of the neck, the chest, between the fore legs. The heart was auscultated on both sides, but its beatings could not be heard. Respiratory murmur present and rather strong in both lungs. The diagnosis is now easily made and told to the owners: *pericarditis*, probably caused by a traumatism, with fatal results. I advised slaughtering.

May 14.—Eleven days passed without any news of the case, when, on May 14, I was informed by telephone that the cow was going to be slaughtered, and asked if I would like to make the autopsy. Since my last visit she had grown gradually worse; the swelling invaded all the neck, the throat, chest, belly, sides as high up as the superior third of the ribs. Hardly any food had been taken during the last eight or nine days; she was reduced to the state of a skeleton.

Autopsy.—Large quantity of serous liquid under the skin covering the swelled parts and in the tissues of these parts; abdomen contained about fifteen gallons of a yellowish liquid, the organs contained in that cavity were almost bloodless, otherwise sound. The chest contained about ten gallons of this serous liquid. The pericardium was yellowish-white, a quarter of an inch thick, contained about one gallon of a thick, white, purulent liquid. The heart was atrophied to about half its

normal size, hard, of a grayish white color, and had the appearance of a mass of tallow; its cavities were much reduced in size, the valves were thickened, endocardium thickened, grayish white. I shall never forget my stupefaction when I looked into that chest. *Oh! but where were the lungs of that animal?* The fact was that there were no lungs to be seen at first. The chest being opened, showed a mass of liquid, which, evacuated, showed the heart and pericardium in the state above described, but no lungs could be seen for the following reason: Inflammation had invaded the whole pleura, which presented the same appearance as the pericardium; it was thickened as the latter, and was completely adherent to the sides and diaphragm, so that the lungs were imprisoned in it and firmly stuck to the ribs; it was only after having dissected the pleura from the sides that they could be seen, compressed and congested. No trace of foreign body could be found, though the researches were long and carefully made.

This case is remarkable for the length of time it lasted (17 days), and is interesting inasmuch as it shows the resemblance at its outset with gastritis and pulmonary, or, rather, respiratory organs. It may tend to caution practitioners to be exceedingly careful in their examination of patients supposed to be suffering with these diseases.

THE USE OF ANÆSTHETICS IN VETERINARY PRACTICE.

By G. W. BUTLER, V.S., Circleville, O.

A Paper read before the Ohio Veterinary Medical Association at Columbus.

It is not my desire to-day to tire you with an exhaustive paper dealing with anæsthetics from a theoretical standpoint.

The history of the discovery of the different agents that are used to produce anæsthesia, the modes of preparing them, etc., can be studied, if we wish to do so, from our text-books, and, in my opinion, it is not in good taste to read lengthy theoretical articles at our meetings, for, at the best, they can only be a repetition of what we all have an opportunity of reading at home. To be sure, if we should discover something of importance pertaining to our profession, we should,

by all means, repeat it. What I have to say will in part apply to my own experience in the use of anæsthetics; and I shall also act the part of a supplicant in behalf of our dumb patients.

Notwithstanding the wonderful progress that has been made in veterinary science during the last two or three decades, as is shown by the extensive study of bacteriology and its application to general practice, and the improvement of our profession from a social standpoint, yet I fear there are far too many of our graduated veterinarians of to-day who do not use anæsthetics even when performing the most painful and prolonged operations.

The veterinarian, above all others, should be humane; and it appears to me that if he does not exercise every power to make the necessary operations painless, he is not doing his duty as a man, nor conducting himself in a manner befitting our noble profession.

What is more repulsive to a sympathetic, kind-hearted person, than to see a horse tied in such a manner that he is forced to submit to the most cruel operations upon the most sensitive structures while in a conscious condition?

The removal of diseased eyes; operations involving the sensitive parts of the foot; firing exostoses and tendons with red-hot irons; making extensive incisions in operations for fistulous withers and poll evil; spaying of bitches, and dozens of other painful operations, which occasionally take an hour or more to perform, done without an anæsthetic.

These are acts of barbarism, and should have no place in progressive veterinary science; and until we cease to think lightly of these things, we should be a little slow in applying the term quack and empiric to practitioners who have not had the advantage of a college education. There are several factors which no doubt tend to prevent the more general use of anæsthetics in veterinary practice. Judging from what has been written by some authors, the use of anæsthetics in veterinary practice is attended with a great deal of danger. Finlay Dun, in his work on "Veterinary Medicines," states that chloroform anæsthesia is attended with more risks in vet-

erinary practice than in human patients. The same author speaks of horses dying from respiratory and cardiac arrest after having been anæsthetized with chloroform, as if it were *not* an uncommon occurrence.

From what others, who have had an extensive experience, have written, and from my own experience, I am inclined to think that such unsatisfactory results have very often been due either to carelessness or to a lack of knowledge of the proper mode of administration on the part of the anæsthetist. Many contend that chloroform is too expensive to use in general operations, and that it cannot be safely given without the assistance of a second veterinarian. With the proper kind of an inhaler, and at the present price of chloroform, the expense is very small; and while it is much more convenient to have the anæsthetic given by a professional assistant, it is not particularly necessary, as one can both administer the chloroform and operate by having the assistance of ordinary help. Again, some oppose the use of chloroform on account of the extra time occupied in its administration, and the recovery of the animal from its effects. If it were necessary for these parties to have the surgeon's knife inserted into their own sensitive bodies they would immediately discharge the attending surgeon should he decline to administer an anæsthetic on account of a little extra time consumed, and they would be justified in doing so. These are some of the reasons why veterinarians do not use anæsthetics more extensively.

I believe that our colleges (at least some of them) are not altogether blameless for this apparent indifference of many of their graduates in regard to using the knife upon our sensitive, yet helpless, patients. I do not think sufficient stress is put upon the subject to impress the student's mind with its importance.

If students were given a little opportunity of seeing the various operations performed under anæsthesia, and if they were taught the proper modes of administering the agents to the different animals in detail, they would be less timid when they assume the responsibility of an individual practice; and

would not only enjoy the benefits to be derived from the general use of anæsthetics in their operations, but would command greater respect and admiration from their patrons, the majority of whom are opposed to witness the extreme suffering of their animals when operated on in a conscious condition.

As to the comparative value of the different anæsthetics in veterinary practice there is a difference of opinion, but it is generally conceded that chloroform is the best agent for all the lower animals, the dog, perhaps, excepted. Whatever drug is used, it should be pure.

Dr. Archie Stockwell, in an excellent article published in Vol. XIV of the AMERICAN VETERINARY REVIEW, states that neither clinical experience nor experimental research has been able to positively demonstrate the exact conditions, in either man or animals, to which any one anæsthetic is specially applicable, or even under which it can be most advantageously employed, for the information extant is almost wholly made up of negations.

Each individual patient requires individual study, since what may be "meat" for one may prove "poison" for another, and the final selection, if judiciously made, will be based solely upon the physiology and pathology of the disease; the physiological manifestations prone to follow the use of the anæsthetic, and racial and individual idiosyncrasies.

The same author, in a second article on this subject, published in Vol. XV of the AMERICAN VETERINARY REVIEW, states that chloroform should be preferred to ether in aged creatures, who, as a rule, bear chloroform better, especially as ether may induce pulmonary troubles. In operations about the mouth or respiratory organs, where the actual cautery is to be used, ether is inhibited, because of its inflammability.

In cases of lung infection and where absolute muscular relaxation is demanded, as for the diagnosis of tumors, the reduction of luxations, etc., chloroform is vastly the superior of ether.

In certain abdominal operations, such as herniotomy; and in cases where venous engorgement is a decided advantage,

as in the ligating of large arteries, chloroform is to be preferred. Chloroform is also preferable when an anæsthetic is required to be frequently exhibited to the same individual, man or animal, the class *felidæ* excepted.

Where degenerative disease of the heart or kidneys exists, or both (as they are associated and interdependent more often than is commonly supposed), provided there is no serious pulmonary complications, ether, should by long odds, obtain the preference. When pulmonary disease exists, without renal or cardiac complication the morbid condition becomes, *per se*, an element of safety in the administration of chloroform, while it inhibits the employment of ether.

When death is caused by the administration of an anæsthetic in too great a quantity, it is generally due, especially in the lower animals, to respiratory arrest, but that death is sometimes caused by cardiac paralysis, especially in the dog, following the use of chloroform, there is no doubt.

Unger discovered that animals, especially canines, chloroformed for several hours at a time and upon successive days, showed upon autopsy undoubtable evidence of fatty degeneration of the (1) heart, (2) kidneys and muscular structure, and (3) gastric and mucous membranes generally.

Strassman, as a result of independent experiments, corroborates Unger, and sums up his researches as follows:

"1st.—After chloroforming in dogs, there can be demonstrated a fatty metamorphosis of the liver; the heart may partake of the same changes as a secondary result; other organs are seldom affected. The changes consist of true fatty degeneration, and not of fatty infiltration.

"2d.—Subsequently to the usual chloroform narcosis, and when recovery therefrom has apparently taken place, a fatal result is occasionally observed to occur.

"3d.—Inasmuch as in the fatal cases the heart changes were found to be particularly well marked, these latter may reasonably be assumed to have been the cause of death.

"4th.—In non-fatal cases, the evidence of degeneration changes are not found after several weeks.

"5th.—These changes are particularly prone to occur. In

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those in whom debilitating influences, such as hunger, loss of blood, etc., can reasonably account for the susceptibility to the undue action of the anæsthetic. In young and vigorous animals, a greater power of resistance counteracts a tendency to these changes."

Giving credit to the above experiments it is apparent that chloroform anæsthesia produces a marked effect upon the dog, and I think we may safely conclude that ether, or a mixture of alcohol, chloroform and ether is a safer anæsthetic for that animal.

In my experience with anæsthetics in dogs, I have nearly always used the alcohol, chloroform and ether mixture: one part of alcohol, two of chloroform, and three of ether, with the happiest results.

I do not know the exact number of dogs I have anæsthetized with this agent, and while my canine practice is very limited, compared with that of some veterinarians, yet I have spayed about fifty bitches, castrated a few males, and performed other operations under anæsthesia, so that I think I have given it to dogs about seventy-five times without a fatal result.

In anæsthetizing the dog I use a funnel-shaped bag, made of gum cloth, the same as is used in making storm cloths for carriages.

Upon a few occasions temporary respiratory arrest has occurred, but in these cases normal respiration resumed after the removal of the bag from the nose, a little shaking, and a backward and forward movement of the fore-limbs. More difficulty was experienced in one case. It was a setter dog that was being anæsthetized for the purpose of amputating his tail. The dog struggled violently as soon as I put the muzzle to his nose, and, instead of removing it and giving him a little air, as I should have done, until he quieted down and became accustomed to it, I held it to his nose until he quit struggling, when I noticed that he had also quit breathing. I shook him, pumped his legs, and pulled out his tongue, yet he appeared lifeless. I then stepped to the pump, a few yards away, pumped some water, and dashed it on his

head, and yet he did not resume breathing. I about concluded that it would be unnecessary to amputate his tail, for a dead setter whose caudal extremity is intact is about as valuable for hunting-purposes as one that has been relieved of that portion of his anatomy. But I opened my case, and from the aqua ammonia bottle I poured a few drops into my patient's mouth, when, to my delight, he began to breathe and I proceeded to cut off his tail. This, no doubt, was very close to a fatal result; but at that time I had not had much experience in the use of anæsthetics, and I consider the trouble was due to a fault of mine, and not to the anæsthetic. I am satisfied that one should not be in too great a hurry in anæsthetizing dogs, in order to grant them the greatest degree of safety. In all other animals I have used chloroform, so that I am not well prepared to discuss the comparative value of the different anæsthetic agents.

In my experience with cats, which is rather limited, I have found that chloroform acts nicely. I have chloroformed them for castration, stitching wounds, removing foreign bodies and decayed teeth from the mouth, etc., and simply use a little cotton-batting saturated with the agent, being careful not to hold it too close to the nose. In hogs I have administered chloroform for such operations as gastro-hysterotomy; castration of cryptorchids; operations for diseased scrotum, resulting from improper castration; scrotal hernia; removal of tumors, etc. In giving the chloroform, I use cotton-batting without any muzzle or sac, and I find that hogs take it very nicely if they are given a little air during the administration.

During the last summer two hogs that I was operating on under anæsthesia died, and I regret that I did not make post mortem examinations to ascertain, if possible, the cause of death. The first was a boar that weighed about eighty pounds, and had a large scrotal hernia. An assistant caught him where he was running with others, and pulled him by the leg several rods to a shed where the operation was performed. I gave the chloroform, and, after a struggle or two, the hog became quiet, and I took the anæsthetic from his nose and

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operated on him, doing the covered operation, using a ligature instead of a clamp. He still breathed, and I had no thoughts of him dying, but when I had nearly finished washing, etc., I saw he was dying, and I could not prevent it, notwithstanding my efforts. The second case was a rather small pig with a diseased scrotum, following castration, complicated by a bad hernia, the whole mass being as large as my head; consequently the operation was prolonged and my assistant renewed the chloroform several times. When we had finished the operation the respirations were shallow, and the pig lived only a few minutes.

In Case I, the hog inhaled but little chloroform, in fact, much less than it usually requires to produce anæsthesia suitable for such an operation, and as he breathed for ten or fifteen minutes after the chloroform had been removed from his nose, I can scarcely account for his death. He may have been injured in his struggles while being brought to the place of operation, or his death may have been due to a too sudden inhalation of chloroform.

In Case II, the pig was not very strong, and the operation occupied some time, thus requiring a great deal of chloroform; and as its administration had to be left largely to the men who were assisting in the work, it is quite probable that the pig received too much of it, which caused its death. If due care be taken hogs can be chloroformed with but little risk. Young pigs take but very little of the drug before they become unconscious.

I have heard it stated that horses are less susceptible to the effects of chloroform than all other domestic animals, but my experience does not corroborate this, as I have found that cattle offer a greater resistance and are anæsthetized with greater difficulty. In painful operations on horses and cattle I nearly always use an anæsthetic if the nature and seat of operation will permit. If the desired effects can be attained by producing local anæsthesia I use cocaine, which in my opinion is a very valuable addition to our materia medica. It is surprising the number of operations that the use of this agent renders painless, which otherwise would be very

painful unless a general anæsthetic were used, and very often it saves the trouble of casting the animal. Operations upon the feet and eyes, trephining the sinuses of the head, removal of tumors, if not too large, neurectomy, many cases of firing, etc., can be done under the effects of cocaine. If a local anæsthetic is impracticable I use chloroform, and I find that animals that have undergone serious operations when under the influence of an anæsthetic, are free from the great shock and constitutional disturbance which is so often seen when such operations are performed on animals in a conscious condition.

In administering chloroform to horses and cattle it is necessary, in compliance with economy as regards both time and expense, to administer it in a tolerably concentrated form, and yet, if there is not some provision made in the inhaler used to allow the escape of impure expired air the animal is apt to suffer from lung affection, or some other complication afterward, especially if the nature of the operation has been such as to demand the application of the inhaler for a considerable length of time.

Two or three years since, in talking with a prominent veterinarian in regard to this subject, he stated that he had almost discarded the use of general anæsthetics on account of pneumonia following anæsthesia. The same veterinarian mentioned another prominent practitioner whose experience had been similar.

Upon making inquiry as to the kind of an inhaler they used, I was told that it was nearly similar to the one I have had made and use, and which you now have an opportunity of examining, except that it was not supplied with the holes and button on the end.

As I have used this inhaler several years on perhaps a couple of hundred animals and have never had a case of pneumonia or other complication follow, I conclude that these holes in the end of the inhaler, and the button so arranged that the holes can be opened during the expiratory act, thereby permitting the escape of the impure air, is a big improvement.

In administering the anæsthetic, if the animal struggle

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violently when it first smells the drug, as it is quite apt to do, I turn the button, so as to admit a little fresh air, when usually a quieting effect is produced, then I turn the button so as to close the holes. The air now being excluded as far as possible, the animal soon yields to the effect of the drug, when I open and close the holes alternately during expiration and inspiration so as to get rid of the impure air and prevent its being inhaled repeatedly. After the desired condition of anæsthesia is reached, I turn the button so that the holes are open, and if I think the operation is going to occupy much time I pour in a little more of the drug. In this way the patient is getting some pure air and at the same time is inhaling the anæsthetic. With this apparatus it is not difficult to both operate and give the anæsthetic with the assistance of ordinary help.

The time occupied in producing the condition of anæsthesia, and the amount of the drug used, vary with the age and peculiarities of the animal. Yearling and two-year-old colts usually require one or two ounces for short operations, such as castration, and the time taken to anæsthetize them is from one to five minutes. Older animals usually require more of the drug, and cattle take more than horses.

Two or three times I have tried to kill horses with chloroform, and after using several ounces and taking considerable time, I have had to resort to other methods. I do not wish to be understood, however, that I claim that horses cannot be killed by the inhalation of chloroform; neither do I recommend the careless use of it, for some individuals are much more susceptible than others, and we should always be on our guard.

This paper is already too long; our object in bringing this subject before you is to endeavor to stimulate a thorough discussion. To me it is a subject of great importance, and one I think that has been sadly neglected. It may be that I have become a fanatic on this line, but I will say that when it is necessary to perform painful operations, when the administration of an anæsthetic is impracticable, as it sometimes is, it is a very unpleasant part of my practice; and if what I have

written, and the discussion which I hope will follow, have the effect of producing a deeper feeling of sympathy for our patients, so that the different operations to be performed will as often as possible be done under anæsthesia, then I shall feel amply paid for my trouble.

In conclusion, if any of you desire one of these inhalers I will have it made and sent to you at cost.

PECULIAR FATAL RESULT OF AN ŒSOPHAGEAL OBSTRUCTION.

By E. C. THURSTON.

A Paper read before the Montreal Veterinary Medical Association.

The subject was an Irish terrier pup, about eight months old, brought to the hospital on the 31st of October last, at 9 A.M., suffering intense pain; the history of the case was brief, the animal being first noticed to be ill shortly after dinner the day previous.

The symptoms pointed to some gastric or intestinal trouble, the patient looking repeatedly around to one side, and tucking his nose close up against the abdomen, this would be followed by occasional efforts to vomit, a complete stretching out of the body, all four limbs being extended and the animal lying with the abdomen to the floor; pulse very rapid, temperature 104° F.

After a hot bath, a dose of castor oil was administered, and an enema of hot water and soap given, a large linseed poultice was then applied to the abdomen, this being renewed every hour; shortly after the first poultice was applied, there being no abatement in the suffering, an anodyne was administered, being repeated at intervals.

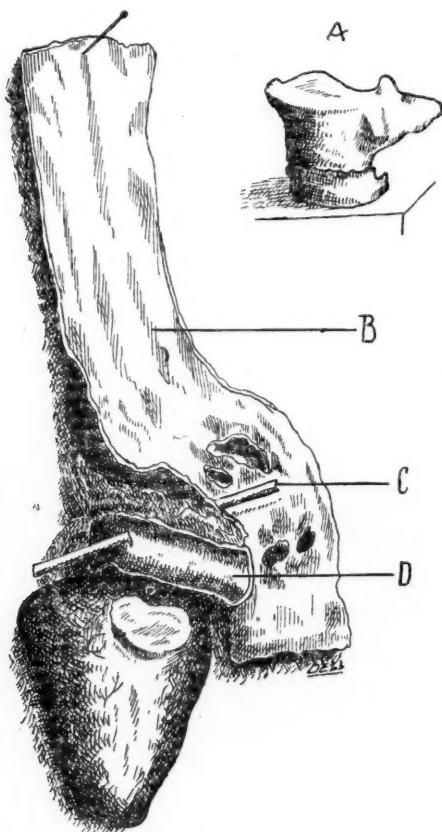
At three o'clock in the afternoon he passed both urine and fæces, the latter thin, of a yellowish color, containing traces of mucous; the last opiate was given at eight o'clock in the evening, the poultice was changed several times up to midnight, when the patient was given three ounces of beef tea and left for the night, being perfectly conscious and apparently free from pain; both food and water were offered him, but he showed no inclination toward either. When seen at

seven o'clock the following morning he was sleeping quietly, but about two hours later he commenced to moan and show further signs of pain, though to all appearance it was not so severe as that of the day previous. The same treatment was continued throughout the day, namely poultices and anodynes with an occasional enema of warm water. At six in the evening he was seized with a shivering fit as if suffering from cold, although the atmospheric temperature of the quarters in which he was confined was fairly high, the patient's temperature had fallen to 98° F. However, he was wrapped in warm woolen cloths and placed in a basket near the steam radiator in the pharmacy and an alcoholic stimulant given; an effort was made to repeat this in an hour, but power of deglutition seemed to be lost. At eight o'clock he was seen to be rapidly sinking, mucous membrane of the mouth was extremely pale, and the power of locomotion almost entirely gone; at 9.15 there was a profuse rectal hæmorrhage and death followed within an hour.

Post Mortem.—Being unable to communicate with the owner, the autopsy was not held until sixty hours after death. An opening was made along the median line and abdominal organs exposed. The spleen was in its normal situation, somewhat elongated, thin and soft, of a pale red color, on section soft and pale; pulp normal in amount, fibrous tissue normal in quantity, malphigian bodies distinctly seen, large vessels containing well formed clots non-adherent; liver pale and friable. The intestines contained a blackish green semi-fluid mass. Intestinal mucosa pale; stomach half filled with a blood cast.

Thoracic organs.—Slight adhesion of the right pleura, lungs pale and crepitant throughout, heart normal in size, right auricle almost empty, right ventricle contained some fluid blood and a dark clot, valves normal; left heart almost empty, valves normal, muscle pale; lungs pale and anæmic.

Œsophagus at the level of 1 cm., above the base of the heart obstructed by bone, irregular and jagged in form, greatest diameter 3 cm. by 2 cm. by 1½ cm., causing several ulcerations, one adjacent to the aorta, 2 c.m. long by 7 mm.



A.—Bone causing perforations, etc. B.—Internal aspect of œsophagus. C.—Skewer placed in perforation into lumen of aorta. D.—Internal aspect of aorta.

wide, surface smooth, red, and at one point penetrating the lumen of the aorta; another very small one is beneath it; on the other side are two ulcerations, one quite penetrating the œsophageal tissues, another small one more superficial. From this it will be seen that death was due to internal hæmorrhage caused by this piece of bone penetrating the œsophageal wall, and into the lumen of the aorta.

In conclusion, I beg to thank Dr. Martin, of the Pathological Laboratory, for the very kindly interest he has taken in this case; and also my fellow student, Mr. Harri H. Dell, for the admirable pen drawing from which the accompanying cut is taken.

EXPERIMENTS WITH BARIUM CHLORIDE.

By J. J. MCCARREY, McGill University, Montreal.

A Paper read before the Montreal Veterinary Medical Association.

The following case reports embody the results of some experiments recently made by the '96 Journal Club with barium chloride as a therapeutic agent in the treatment of colic. This drug was brought to the notice of the profession by Dieckerhoff, who highly recommends the agent on account of its prompt and efficient action in producing peristalsis, and its low cost as compared with pilocarpine and eserine.

CASE I.—Bay gelding, aged, weight about twelve hundred pounds, subject for experiment. The animal in question received an intravenous injection of one gramme of barium chloride in solution. In four minutes the peristaltic murmur was much increased, followed by the evacuation of fæces. In nine minutes another evacuation occurred and again in twenty minutes. The pulse and temperature were unchanged throughout.

CASE II.—Bay mare, weight about one thousand pounds, suffering from spasmodic colic. Was given an intravenous injection of one gramme of barium chloride in eight cc. of water. In three minutes after there was considerable straining, and increased uneasiness. In five minutes the animal defecated, the fæces being hard in consistence. In thirty minutes after injection fæces were again expelled and at intervals of a few minutes for an hour, each evacuation being softer than the preceding. Straining was marked between evacuations, indicating violent peristalsis. In this case there was a slight increase in pulsations, respiration and temperature. In three hours the animal showed no symptoms of colic, and the effect of the drug had apparently passed off.

CASE III.—Bay mare, aged. Received a subcutaneous injection of 1.2 grammes of barium chloride in 10 cc. of water. One minute after injection the animal appeared uneasy. In fifteen minutes after she commenced to strain, but no evacuation occurred till half an hour after receiving the injection.

After this at intervals of a few minutes evacuation occurred, continuing for about an hour and a half. No change in temperature nor respirations, but the pulse was slightly accelerated.

CASE IV.—Brown gelding, aged, suffering from spasmodic colic. Received 1 gramme of barium chloride dissolved in about 10 cc. of water intravenously. Fæces and flatus passed in nine minutes, although straining was noticed about one minute after injection. Evacuation took place at intervals of a few minutes, continuing for half an hour, although there was an abatement of colicky symptoms immediately after the first evacuation.

CASE V.—Bay gelding, five years old, showing similar symptoms to preceding case. Received 1 gramme barium chloride dissolved in 10 cc. water intravenously in the jugular vein. Fæces were not passed till twenty minutes had elapsed, but after that at intervals of five to fifteen minutes. This case did not recover from colic for three hours, although the violence of the symptoms were much lessened after the first evacuation.

CASE VI. The subject in this case was a thoroughbred mare, five years old, and in about the fifth month of pregnancy. The animal was taken with colic at 9 A.M. Anodynes were given with warm water injections. This treatment was continued throughout the day without any improvement. At 8 P.M., as a *dernier resort*, it was decided to use barium chloride, the use of which had been delayed on account of the state of pregnancy in which the animal was. At 8.15 P.M. an intravenous injection of 15 grains in 5 cc. water was given intravenously. At 8.19 the first symptoms of the action of the drug were noticed. The animal laid down and strained violently. Five minutes after flatus and a small quantity of almost liquid fæces were passed. Straining continued at intervals for half an hour without the passage of fæces and the colicky symptoms apparently aggravated. At 9 P.M. rectal injections of warm water were given and an exploration revealed the fact that the colon was filled with fæces which were passed a few minutes later. The animal made a complete recovery.

LIGATION OF THE CAROTID ARTERY.

By E. H. MORRIS.

A Paper read before the Montreal Veterinary Medical Association.

The subject was a two-year-old colt, well-bred, in good condition and of a highly nervous temperament. He had been tied near an iron picket fence, and in his restiveness tried to jump over it; the hitch rein being still tied, caused him to fall on the fence, severely lacerating the deeper tissues of the neck at the lower third of the cervical vertebra, causing much hæmorrhage. I was called to see the colt, but not until after every farmer who happened to be present had exhausted all his "sure" methods of arresting hæmorrhage. Some had stuffed dried leaves and dirty rags in the wound, others had packed coal ashes in it and some had even tied strings around the animal's tail to stop hæmorrhage of the carotid.

When I arrived I found the animal so weak that he could hardly stand, and he was easily thrown down by pulling his head to one side and twisting it a little. After having carefully picked out all the dirt and trash, I washed the wound carefully and was able to locate the exact source from which the blood was coming. The wound, which was on the right side, was about six inches long, running in a longitudinal direction through the scalenus muscle, exposing at least four inches of the trachea, carotid artery and vagus nerve. On observing more closely a torn place in the carotid, about one fourth of an inch in length, could easily be seen, from which the blood was oozing.

I had never heard of the carotid being ligated, and at first was puzzled to know what was to be done. The first thought that struck me was, how was this side of the head and face to receive nourishment? The animal was bleeding to death, and what was to be done was to be done immediately, as the pulse was already imperceptible at the submaxillary artery. I applied a strong silk ligature below the wound in the vessel, and through fear of this giving way applied another at the same place. I also put one beyond the wound, the peripheral

ligature was necessary on account of the anastomosis through the vertebral into the occipital and innominate arteries.

We next washed the wound out with a carbolic solution and put eight or ten sutures in the muscle and as many in the skin, leaving an opening at the bottom of the wound for pus to escape if any should form. He was then allowed to rise, which he did with much exertion. He was so weak that he could not walk without staggering from one side to another, and would occasionally plunge forward into the crowd which had gathered, seemingly in a fainting or unconscious manner. It was impossible to keep him quiet. Next he was given an ounce of whiskey subcutaneously, which seemed to bring him more to his senses, and he was removed to the stable, where an iodoform dressing was applied. At intervals of about three or four hours he was brought out of his box and cold water was allowed to run over the wound for an hour or two at a time. This was to keep down the inflammation and prevent arteritis being set up. He was taken to the stable about six o'clock in the afternoon. About nine P. M. I tried to give him a stimulating drench, when he gave a lunge and fell with his head under the manger. We concluded that worrying him by drenching would do more harm than the drench would do good, as he was very wild. We did nothing more with him till morning. Next morning the pulse was imperceptible on the injured side, but on the other side was very weak and rapid; temperature was 98° F., and the right side of the face and the right ear were much cooler than the left, the right carotid being the ligated one. The wound looked well and the sutures were still in good condition, much to my surprise, for I fully expected them to have been torn out. There was no great swelling, and no exudate, but it was very hot and painful, so I continued the cold water treatment.

The animal ate some grass and drank heartily, but was still very weak, and I continued through the day to administer mild stimulants. For the next three days we kept up the cold water treatment and tried to keep the wound aseptic. He was much stronger, the appetite returning. The owner, who lived fourteen miles in the country, came in on the fourth day

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after the injury and took the animal home, against my advice, for I thought the colt was too weak to make such a long trip. However, he did stand it very well, and the owner told me that the wound healed entirely without any appreciable slough, and the sutures kept in place to the last.

The reason the sutures held so well in this case is that the wound was so painful that he could not rub against anything without causing much discomfort. I have not seen the animal since he was taken home, but the owner told me that there was not the slightest scar left, and that one side of his face was as warm as the other, and the colt seemed as well as he ever was.

INTERESTING POST MORTEMS.

By C. E. CLAYTON, D.V.S.,

Assistant Surgeon American Veterinary Hospital, New York.

PERICARDITIS IN A CAT.

On November 30th a cat was admitted to the hospital with the following history: For the previous ten days had appeared dull and for the last three days had eaten nothing. Respiration was seen to be difficult and very much increased, salivation free and the appearance of ascites. A diagnosis of heart disease was made, the nature of which it was unable to discern, on account of the difficulty of keeping her quiet. She died the next day, and on post mortem about ten ounces of fluid were found in the abdominal cavity, about five ounces in the thoracic cavity, and about three or four in the pericardial sack, and here was where the lesions existed; the pericardium was enormously thickened, the heart hypertrophied, and on the left side the heart had become adherent to the pericardium for the greater part of its surface. When they were broken apart the surfaces looked exactly like the rough granulations of a wound.

HEART DISEASE IN A DOG.

On December 25th a cocker spaniel was brought to the hospital suffering with incessant cough, which she had had for two years, treatment having proved useless. The owner

wished her destroyed, which was done by etherizing. On post mortem all organs seemed normal, other than being surrounded with immense quantities of fat, except the heart, which was somewhat hypertrophied; upon examining its interior a most beautiful specimen of calcified valves, the bicuspid showing the most changes, was discovered.

HERNIA OF THE INTESTINES THROUGH THE MESENTERY IN A HORSE.

On December 9th I was called to see a black mare, and found her suffering severe abdominal pain, the history being that she had been all right previously, in fact had never suffered any illness with the present owner; had been ridden in the ring that evening, but on coming into the stable showed severe pain. The usual anodyne treatment was prescribed and administered, and in about twenty minutes seemed to give very great relief. She was then left, with orders to call us again if she did not get better. At 11:30 I was called again, and on arrival found her with constant pains, and wishing to lie down all the time; when made to rise she would walk in a circle and finally throw herself down. Every effort was made to relieve the pain, but to no purpose, and a serious prognosis was given. She died early the next morning, was brought to the hospital and a post mortem made. Upon opening the abdominal cavity a portion of the intestines showed strangulation, and upon looking for the cause of it we found a rupture of the mesentery adjacent to the foramen of Winslow, and through this rupture a portion of the intestines, measuring twenty-one feet, had passed; one border of the rupture formed a cord, which was wound around the portion forming the hernia, so to speak, like a ligature.

TAPE WORMS IN A CAT.

On January 12th a cat was admitted, and upon examination found to be suffering with gastro-intestinal irritation and profuse diarrhea, which the owner said she had had for three days; he had administered bismuth and opium, which we changed to cannabis indica, which seemed to relieve the pain very well, but she gradually became paralyzed in the

abdominal extremities, then extending forward, when the left fore leg seemed to be affected and death took place on the 14th. Post mortem showed organs normal, until the intestinal tract was opened, which contained no food whatever, but about a dozen tape worms were found.

ANTHRAX IN NEW JERSEY.

By S. C. TREMAINE, D.V.S.

That there was an outbreak of anthrax in New Jersey seems to be doubted by Dr. J. W. Hawk, President of the New Jersey Veterinary Medical Association, and others; yet few who saw a well marked case of the disease which proved so fatal among the horses, mules and cattle of Cumberland County during the summer of 1895, would doubt the diagnosis.

Possibly the reason that no report has been made by a veterinarian is because the State officials, in making a selection for inspectors, seem to prefer butchers, bakers, etc., rather than veterinarians, who are employed to do the inoculating under the instructions of said inspector.

The disease first made its appearance in 1895 near the village of Newport, about the 1st of July. Dr. Glandon, president of township health board, wrote the State board asking that the State veterinarian be sent to investigate. There being no State veterinarian, Dr. Thomas B. Rogers, of Woodbury, N. J., was sent by the State Board of Health; he did not examine a case of the malady, but from the history diagnosed it anthrax.

Dr. W. Runge, of Newark, also made a visit to Cumberland County, but saw only one cow that was dull, and had a temperature of 105°, which animal died two days later; blood from this cow was sent to Dr. Runge, but he found no bacillus. The blood from three or four other animals was sent to him, in all of which he found the bacillus anthracis.

The disease was prevalent in two forms, viz., external and internal anthrax; the former, or milder form (symptomatic anthrax) being characterized by large œdematous swellings situated under the chest, abdomen or in the groin, sometimes

extending to the foot. These swellings are very tense, and if punctured will emit a dark, bloody serum, gradually becoming straw-colored as it ceases to flow. Temperature in external anthrax averages about $104\frac{1}{2}^{\circ}$, pulse from 60 to 90, respiration about normal; mucous membranes highly injected, and in some cases ecchymotic spots will be seen on the Schneiderian mucous membrane; appetite as a rule good. Bowels generally constipated, animal generally succumbs in three to four days.

Immediately after death the animal swells to an enormous size, the skin crepitates on pressure, this being due to the formation of gas in the subcutaneous areola tissue. On post-mortem the blood will be found almost black, very fluid, and does not clot. Extravasations into the sublumbar tissues are often found, the liver and spleen are found enlarged, and broken-down effusions are found in the thoracic and abdominal cavities. The intestinal mucous membranes are in many cases highly congested and the intestines covered with petechial spots.

In the internal form of anthrax (splenic apoplexy), there are no premonitory symptoms, with the exception of a rise in temperature; animals apparently well an hour or two before, will die, and on post-mortem present all the symptoms of anthrax. After death a bloody, purulent discharge escapes from the rectum (which is prolapsed), and in many cases from the nostrils.

Cattle and mules seem more susceptible to the internal and more fatal form, and die suddenly. I was called on July 5th, 1895, to treat a horse for Quincy Joselyn, at Newport; supposed the case to be purpura hæmorrhagica, treated it for such, and animal made a speedy recovery.

Was called to the same place on July 9th to see a bay horse, owned by Reuben Leaming, suffering from symptomatic anthrax; œdematous swellings under the abdomen and the chest, legs also swollen; treated this case the same as Joslyn's; animal recovered in about fifteen days. Mr. Leaming had previously lost a cow and a mule with symptoms of anthrax—he being the first to lose an animal with the disease in

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1895. I also visited five other cases on July 9th, all of which died within a few hours. Hearing a few days later of several animals dying in the vicinity of Newport, I went to investigate on my own account.

Producing blood from a horse suffering with external anthrax, I inoculated a rabbit, which died in about thirty-six hours, and on post mortem presented all the lesions of anthrax. Examined this blood with microscope and found bacillus anthracis, thus expelling any doubt as to diagnosis.

On the 15th of July I held a post mortem on a horse, owned by Ambrose Gandy, the animal being sick only twelve or fourteen hours. This examination was made in the presence of Dr. N. M. Drake, of Philadelphia, and Dr. Glandon, M.D., of Newport, N. J., who examined some of the blood taken from the heart, and found the bacillus anthracis in abundance.

I saw three cases of external anthrax in cattle, one a steer that recovered entirely, being one of three remaining out of a herd of ten, the rest having all died within three weeks; also a bull that was terribly swollen in the hind extremities, the scrotum also swollen and covered with coffee-colored spots; the animal lived a week in this condition.

On the 16th of July I received from Pasteur Anthrax Vaccine Company forty doses of fresh anthrax lymph in twenty-dose vials, receiving later in the day one hundred doses more. I began my inoculations on the afternoon of July 16th, and by July 27th had inoculated one hundred and seventy-six horses, one hundred and fifty-two cattle, and fourteen mules. Of this number only three contracted and died of anthrax, and these were taken before second inoculation was made. In some instances where people had part of their stock inoculated, one or more of the animals that had not been inoculated had died; this generally happening on farms previously infected. Only in one instance do I know of an animal dying from the disease after the second inoculation.

The only bad effects I received from the lymph was from the first two twenty-dose vials, leading me to suppose that they had been kept on hand for some time. Several of the

animals I inoculated with this lymph swelled near the seat of inoculation in three or four cases to an alarming extent.

About July 28th the State Board of Health had appointed Joseph H. Powell "Special Inspector," and gave him authority to employ two veterinarians to inoculate in the infected district. Commencing my services for the State on the morning of July 29th and concluding them on September 6th, I inoculated 598 cattle, 252 horses, and 35 mules, making a total for State of 885 animals, and in all a total of 1,227. Nearly all of these were inoculated with the second lymph twelve days after the first inoculation. A few of the more ignorant and superstitious would not allow the second inoculation. It was not compulsory, the State generously offered it to them free and they were not urged to accept.

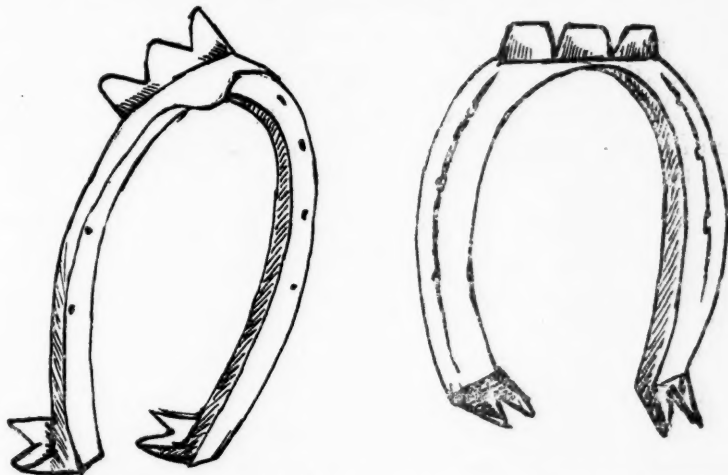
Whether the disease is anthrax or not makes little difference to the owners; what they want is a remedy to save their stock, their only means of livelihood in many cases, and Pasteur's anthrax lymph, from a crucial test, seems to answer the purpose. I have no means of knowing how many head of horses, mules, and cattle have died in the last outbreak, but believe about two hundred head of animals (a low estimate) have succumbed. As to the origin of this disease, nothing is positively known, the theory, or the one most accepted is, that it was imported with hides from Russia into Delaware, the refuse from the tanneries being used as a fertilizer. Cattle were thrown into the Delaware bay and carried by the tides to the New Jersey shores, where the disease first made its appearance, near the marshes and low lands covered by tide water.

NEW FROST SHOES.

By WILLIAM DOUGHERTY, D.V.S., Baltimore, Md.

In presenting the frost shoes for consideration to the profession, the object is to note the advantages they possess over the old style, particularly in northern climates, where winters are severe, and which consequently would necessitate quite

often the removal of the shoes to sharpen points, whereas, in the frost shoes, the points can be sharpened by the use of an ordinary three-cornered file while on the animal.



The division of the toe into three, and the heel into two sections, or pieces, gives the animal a greater purchase on ice, preventing slipping.

REPORT OF THE COMMITTEE ON DISEASES.

By M. R. TRUMBOWER, Chairman.

Read before the United States Veterinary Medical Association.

(Continued from page 697).

PENNSYLVANIA.

Dr. James A. Waugh, of Allegheny City, writes:

"Influenza prevailed among the horses as usual, with many fatalities among green and shipped horses. I have seen some tuberculosis in cattle, and one case in a horse tested with tuberculin, but have not seen any cases of glanders or splenic fever. Hog and poultry cholera prevail in some localities. Cerebro-spinal meningitis prevails at times in some localities. Actinomycosis is rarely seen in this section. The weather has been exceedingly variable, from one extreme to another this summer, and many animals have suffered from

nervous and mental derangements and well marked abnormal actions, which I attribute to some as yet undefined and unusual causes; probably of toxic origin due to chemical alterations in food and water supplies—as I have seen it caused by feeding bologna sausages to dogs, and have seen other forms due to feeding on refuse from saloons.”

Dr. Otto Noack, of Reading, reports an extensive prevalence of laryngo-pharyngitis acuta in his part of the State.
VIRGINIA.

Dr. J. P. Turner, of Fort Myer, makes the following statement:

“I beg leave to reply that as cavalry horses are famous for their good health, I can report very little that is interesting. I have not been stationed East long enough to make any extensive observations, save that the contagious febrile diseases all run a more decided course in the East than in the Northwest, and the fatalities are greater, especially from purpura. In Northwest Nebraska and Wyoming, glanders usually assumes the chronic form; especially is this true among the Brule Sioux ponies, where my observations have been quite extensive. The attacks of influenza and distemper are mild in Northwest Nebraska, and purpurar are. In this section, Nebraska and Wyoming, periodic ophthalmia is seldom seen. In a large surgical practice, in Nebraska, South Dakoto and Wyoming, covering a period of nearly four years, I never saw a case of tetanus, hence, I have heretofore reported that I did not believe the tetanus bacillus existed in the sandy, dry sections of the Northwest. Ranchmen in Wyoming report actinomycosis on the decrease. This may be true, but possibly, owing to the fact that all the large companies order their men to shoot them whenever found on the range, as it did not pay to ship them, even for rendering purposes.”

Dr. E. P. Niles, of Blacksburg, reports as follows:

“The most interesting disease reported was epizootic pharyngitis, which prevailed in the cities of Richmond, Norfolk and Charlottesville. The fatalities were light and treatment very satisfactory in most cases. The most frequent

complication is a form of iritis, which is easily distinguished from the ocular complications of influenza in that the conjunctiva does not become involved. Abscesses occasionally form in the sub-parotid and sub-maxillary glands. Pneumonic complications simulate contagious pleuro-pneumonia. Parties reporting the above did not state treatment adopted. Disease occurred mostly in the early spring; tuberculosis is prevalent in most dairy herds in this State. Over fifty per cent. of one dairy herd, tested with tuberculin by the Bureau of Animal Industry, re-acted. The owners name is not divulged by the Bureau in its report. [The Bureau seems to have gone into the Secret Service.]

"Texas cattle fever exists along the border line to a considerable extent each year. Glanders exists to a slight degree in Virginia. Anthrax among cattle is almost unknown. In connection with tuberculosis and the tuberculin test, I wish to call attention to the unreliability of the second test without the intervention of several months. On several animals that came under my observation, the reaction was very slight [one or two degrees] in the first test. On second test, just one month later, no reaction was obtained, yet a post mortem revealed tuberculosis. It seems to me that the first test is the one upon which we should make a diagnosis."

WASHINGTON.

Dr. S. B. Nelson, of Spokane, sent the following :

"It may be of interest to you to know my observations in regard to certain diseases appearing in the Western country, having been in practice for five years in Spokane. The first two years I observed no anthrax, black-leg, or tuberculosis, but found an occasional case of glanders. In 1893 I observed glanders and three or four cases of tuberculosis, and one case of hog cholera in the immediate vicinity of Spokane. In 1894 the number of cases of glanders and tuberculosis was doubled, and thus far in 1895 I have had the opportunity of condemning inside the city limits seven cases of glanders which had been brought into the city from the surrounding country. I investigated an outbreak of anthrax in milch cows, in a small community in the lower end of the country, and from which

seven or eight cows died; only one sick cow recovered. One outbreak of black-leg in calves, where four or five died, and an outbreak of contagious pneumonia in a herd of 46 pigs, and from which 26 died in three weeks. This year I have also found about fourteen or fifteen cases of tuberculosis amongst the dairy cows in the dairies which supply milk to the city."

WEST VIRGINIA.

Report of Dr. Wm. Petrie, of Wheeling:

"We have no State veterinarian, and the only reports of diseases in animals is by farmers to the State Board of Agriculture. The diseases most frequently mentioned are distemper in horses, and parturient apoplexy in cows. These two maladies cause great losses every year to the stock owner.

"So far there has been no report of glanders, but there is no doubt that it exists in some sections. Tuberculosis is common in many dairies, but I cannot give any idea of the per cent. of cattle that are affected."

WYOMING.

Dr. A. A. Holcombe, of Cheyenne, reports the discovery during the last year of four cases of glanders; two outbreaks of black-leg; no tuberculosis.

WISCONSIN.

Dr. J. L. Scott, of Beaver Dam, writes:

"Since I have entered upon the duties of this office. Feb. 7th, 1895, I have condemned 25 horses with glanders. These have been found chiefly in the northwestern part of the State. There has been probably about 50 cases of actinomycosis reported to me in various parts of the State. Outbreaks of anthrax have occurred in the region around Green Bay, and on a farm near Horicon. At Green Bay it occurred on several farms. In all there has been in the neighborhood of 200 head of cattle lost from this disease. Hog cholera was quite prevalent in the northwestern part of the State in the spring, but no cases have been reported lately. There is no means of determining the percentage of tuberculosis in cattle, but from what I have seen I believe it will fall below five per cent."

NEW MEXICO.

Mr. J. A. La Rue, the secretary of the Cattle Sanitary Board, wrote the following letter:

"Excepting in a dairy herd of Jersey cattle, out of which ten head were found to be affected with tuberculosis, and were condemned and slaughtered by the Sanitary Board, there were no contagious or infectious diseases reported in New Mexico since a head of Texas cattle left fever on their trail ten years ago."

ARKANSAS.

Special report by Dr. R. R. Dinwiddie, of the Arkansas Agricultural Experiment Station, a member of this Committee:

"*Southern Cattle Fever.*—In accordance with the request of the Chairman of the Committee on Diseases, I endeavor in this paper to present some of the more important facts in connection with the pathogenesis of this important disease of cattle, and more especially my own experience and opinions as to the 'tick theory' of its etiology. What I can say on this subject is, for the most part, well known to the veterinary profession, or at least to the reading part of the profession as represented here. Since the important publications of Smith and Kilborne on 'Texas Fever' in 1880, there has been practically nothing added to our knowledge of the pathology of this disease; what has been done since then being for the most part confirmatory of the conclusions reached by these investigators.

"My own investigation of Texas fever began in the summer of 1889, when attempts were made by Dr. Paul Paquin, then of the Missouri Agricultural Experiment Station, to obtain immunity in susceptible cattle by inoculation. My part in these experiments consisted in observing and making autopsies on the inoculated cattle after they had been imported from Missouri to infected ranges in Arkansas. It was assumed at that time that the disease was one of bacterial origin, an opinion which was supported by the writings of Dr. F. S. Billings, then of Nebraska. Of these experiments in preventive inoculation against Texas fever, it is unnecessary to say

more than that they were not successful. It was during that year that I first heard suggested by some of the stockmen and butchers who had seen much of the disease, their belief in the connection between Texas fever and cattle ticks. That such a connection does exist was shown first, as we all know, by the experiments of Smith and Kilborne. Before that time, the generally accepted theory was that cattle from the fever regions, when brought on to the northern pastures infected these by means of their excretions—fæces and urine—and the lengthy interval that was always observed before the disease occurred was explained by assuming that the germs required to develop for some weeks in the soil before regaining their virulence. We now know that these theories are incorrect.

"It is perhaps unnecessary to enter into details of the experiments, just referred to, of the Bureau of Animal Industry. With these, most of you are no doubt familiar. If I briefly outline my own experiments in this connection it is because these cover, to a large extent, the same ground, and with the admission that, so far as the tick theory is concerned, they were suggested by the Government publication of which mention has been made.

"In 1889 attempts were made to convey Texas fever to susceptible cattle by feeding them with the grasses closely cut from the infected southern pastures; and in the following two years very thorough tests were made of the supposed infection-bearing property of the fæces of southern cattle. Both of these tests led to negative results.

"In 1891, and again in 1892, the tick theory of infection was tested in the following manner:

"Close boarded pens of twenty to thirty feet square were put up at the experimental station at Fayetteville, which is a non-infected region, and on the surface of these pens were scattered in the early summer a number of full grown ticks, generally from twenty to a hundred, which had been picked from cattle in the fever-infected districts of Arkansas, Mississippi and Louisiana; one or more susceptible cattle were then introduced into each of the pens, where they remained until the completion of the experiment. They were closely

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examined and their temperatures taken daily. Leaving out of account certain failures which occurred in the first year of these experiments, and due, no doubt, to the lateness of the season, the general result was this: From four to seven weeks after their introduction the first ticks were observed on the cattle. These were all of small size and could be seen only by careful examination; about the same time there was observed a rise of temperature, with more or less signs of ill health and loss of appetite, which in most cases continued for several weeks before a slow recovery took place. In a few cases the disease was not of much severity, but generally the attack was severe, although not fatal. These tests were made with young cattle of from one to two years old. Post mortem examinations were made in a number of the cases which were killed during the height of the fever, and later, during convalescence, and the diagnosis of Texas fever confirmed both by the gross anatomical appearances and by a microscopical examination. The ticks attained their full growth on these cattle about two or three weeks from the time of their first appearance. These, of course, were not the original ticks thrown into the pens, but the next generation hatched from their ova deposited on the soil. This experiment illustrates the way in which pastures become infected by southern tick-bearing cattle.

"In other experiments the ova deposited by large cattle ticks sent to me by Dr. Dalrymple, late of the Louisiana Agricultural Experiment Station, were allowed to hatch out in glass dishes in the laboratory and the young were then sprinkled over the bodies of susceptible cattle. The result was the same, except that the first symptoms of the fever appeared in from ten to fourteen days. These ticks in this last test attained their full growth in about four weeks. When full grown the females were picked off and placed in the laboratory in glass dishes where they immediately commenced their egg deposition, and in a few weeks later another generation of young ticks was obtained. In the first week of October the ticks from this second generation were placed on two cattle in a fresh pen, and in two weeks both of these cattle

were attacked with Texas fever, and one died with all the symptoms of the disease in its most acute form.

"Another experiment was made to test the virulence of ticks which have developed on horses. Young ticks, the progeny of those which had previously conveyed Texas fever to cattle, were placed on two horses; in one case they failed to develop properly and none reached maturity, but from the other a sufficient number of large ticks were obtained to make the desired test. Neither of the horses experimented with showed any signs of ill health. The progeny of these ticks obtained from the horse in the usual way on susceptible cattle yielded negative results. I do not, however, regard this test as conclusive, as the ticks used had been kept over winter in the laboratory and may in this way have lost their virulence.

"The results of these experiments were the same as those obtained by Smith and Kilborne. Profs. Mayo and Francis have also experimented in a similar way and reached the same conclusions. It was further shown by the Bureau experiments that the cattle from the infected regions lost their power of infecting northern pastures when all the ticks had been carefully removed from their bodies. If we accept this last experiment as conclusive, it is obvious that we must regard the cattle tick as the exclusive agent by which the virus of Texas fever is conveyed to northern pastures.

"When cattle from southern Texas fever regions are shipped for long distances north and set up disease in northern stock, it would appear from all the evidence at hand that this is really the case—that the tick is the exclusive intermediate carrier of the virus. Our experience with Texas fever in the South, however, does not support the statement, one time advanced, of 'no ticks, no Texas fever.' Northern cattle imported into central and southern Arkansas frequently die from this disease. Sometimes I have found ticks on their bodies in enormous numbers; sometimes very few have been found, and in other cases, none at all, even with the most careful search. In Arkansas limited outbreaks of Texas fever are common every year among native cattle in many of the

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counties in the northern half of the State. In some cases these outbreaks can be traced to importations of cattle from adjacent counties, while in other cases it is the imported cattle which die while the natives remain unaffected. In many parts of the State the movement of cattle for distances of less than twenty miles is attended with danger during the summer months. In explanation of these facts we have to assume that even within districts far within that known as the 'Texas Fever Belt' there are numerous isolated tracts of uninfected ranges in which the cattle do not possess immunity against the disease. In these localities cattle ticks sometimes appear as numerous as in the infected regions around. In July of this year about two hundred cattle died in St. Francis County of this State. On the prairies on which they died the ticks are not at all abundant, most of the cattle being quite free from them. The owners report that those which died were often free from ticks, and in my own inspection I was unable to find them. *I think it is likely that one or more species of small flies which are exceedingly troublesome to cattle in these districts may be concerned in the propagation of the disease.* Other species of animal life may also act as intermediate bearers of the virus, and there is no evidence to show that this is not also contained in the water and soil of infected ranges, and taken into the system by ingestion or inhalation, as it is believed to be the case with malarial fevers of man. The tick method of natural infection is the only one which has been experimentally demonstrated, and on account of the peculiar habits and life-history of this parasite is, as we have seen, the agent by which the virus is carried to long distances and transferred to the bodies of other susceptible cattle. Other intermediate bearers which may exist in the regions in which Texas fever is endemic are probably confined to these regions, or accompany the movements of cattle for only short distances.

"Since the discovery of the tick method of infection, I have always advised that imported cattle be kept free from these parasites during the summer months, but have no data to show that this has been instrumental in preventing the disease. Accurate experiments, so far as I am aware, have not yet been

made to show whether or not susceptible cattle imported south would be exempt from Texas fever if kept absolutely free from tick invasion. That the tick is not a necessary intermediate host of the Texas fever parasite is shown by the possibility of conveying the disease from affected to healthy cattle by inoculation. Southern cattle are infested by more than one species of tick, although that described as *Boophilus Bovis*, Curtice, is by far the most abundant. One test which I made of another species taken from southern cattle seemed to indicate that it was destitute of virulence.

"As to the nature of the Texas fever germ, we are all willing, I think, to accept the conclusions of Dr. Theobald Smith. His researches in an extremely difficult field of work have shown us that Texas fever in cattle corresponds to malarial fever in mankind, and especially, as has recently been suggested by Dr. Harbaugh, to that severe form of malaria which is known as hæmmorrhagic malarial fever. It is possible that it may be in a measure successfully combatted by the same treatment employed in that disease, namely, by a very large dose of quinine. Hitherto in my attempts at treatment I have generally employed this remedy, but only in moderate doses and not with much success."

INCIPIENT BOVINE TUBERCULOSIS.

MAY IT NOT BE JUDICIOUSLY AND ECONOMICALLY TREATED?

By A. S. HEATH, M.D., V.S., Brooklyn, N. Y.

The relation of milk and meat to human health is so important a matter in the economy of life that the public should demand the best sanitary regulations to secure immunity from infectious diseases of our flocks and herds and their products. We have many advantages in the management of our domestic animals in maintaining them in health, over the relative conditions and environments of mankind. We can breed healthy progeny by sedulously breeding from absolutely healthy progenitors. In the human race, the medical profession cannot secure sanitary marital relations to prevent the transmission of hereditary diseases—the veriest bane of the

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race. Fortunately for the races of man and the lower animals, *bacteriology* has proven the origin of the infectious diseases to result from pathogenic organisms. And, although the immortal Koch failed to cure human consumption by means of tuberculin, yet he furnished to the veterinary profession a diagnostic agent in the tuberculosis of domestic animals of transcendent value. While in the healthy and tuberculous human subject the hypodermic injection of tuberculin causes a sudden rise of temperature, too often injurious, in the bovine race it indicates the most incipient attack of tuberculosis without in the least disturbing the health.

Human physicians have long prescribed for tuberculous patients, out-door life, high altitudes, equitable temperatures, liberal dietary, etc., of more or less benefit to the invalids. These conditions are also beneficial to the animal patients of the veterinarian, but as the small value of animals will not permit a similar procedure from lack of economy, the veterinarian must fall back upon the science of sanitary breeding as a preventive, of incalculable value to the general public.

Human tuberculous mothers endanger the lives of their infants by suckling them, and this holds equally with tuberculous animals; yet, the milk of tuberculous cows is permitted for human food. This should not be tolerated by the boards of health, as we have a positive diagnostic agent to detect the slightest attacks of bovine tuberculosis, and as we possess no positive data at what the milk of tuberculous cows becomes infectious to the human subject, it would be safer and better economy to feed the thoroughly boiled milk of slightly tuberculous cows to pigs; and during the brief time, to subject the cow, if worth the expense, to the treatment which Dr. Cyrus Edson has apparently proven so serviceable to human patients in the more severe stages of advanced tuberculosis.

As I am about to test the "*aseptolin*" treatment in bovine tuberculosis, I shall report the result.

REPORTS OF CASES.

SUPPURATIVE ANEURISM OF THE GREAT MESENTERIC.

By H. D. HANSON, D.V.S., New York City.

On the evening of November 30th, 1895, I was called by Mr. D—, to see a black gelding, six years old, weighing about 1,100 pounds, suffering with what was called colic.

Mr. D— informed me that he had owned the horse some two months, but that he was apparently in healthy condition until about ten days before, when the animal had shown signs of colicky pains almost every evening between the hours of 6 and 8. The horse would receive his feed about 6 P. M., and would eat a few mouthfuls, or at times would refuse to eat, and then would start in to paw, look around at his flank, and would continue in this way for some two hours, after which he would become easier, till possibly the following night at about the same time, when the same symptoms would be shown. This had continued for some ten days, the attacks gradually becoming more marked.

I found the patient in a box-stall, pawing somewhat, looking at his sides and moving around, being slightly uneasy. He would lie down occasionally and remain so for some length of time, being quite easy in this position. The mucous membranes were injected, the vessels dilated; the pulse was somewhat hard and small, being otherwise normal; the respirations were not altered; the temperature ranging about 101° F.; the bowels were inclined to be loose, the fecal matter about normal in color. From the history of colicky pains occurring almost every day, and from the several similar cases that have come under my observation, I made a diagnosis of probable liver trouble, although the yellowish condition of the mucous membranes were absent. The nature of the trouble, of course, could not be made out, on account of the lack of sufficient symptoms.

The prognosis was doubtful: I advised the owner that if organic trouble existed, it would be only a matter of time till the animal would succumb; otherwise the animal would recover. The ordinary treatment of anodynes internally were used in the evening, to allay the pains. The horse was kept on flaxseed tea for forty-eight hours, with the addition of small quantities of bran. Then a pint of raw linseed oil was administered which caused a free movement of the bowels. After this I prescribed nux vomica (fluid extract) for its bitter effect, in combination with the fluid extract of colchicum, to slightly stimulate the liver.

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The second night (December 1st), the colicky pains appeared again, but they were not so severe. After that, I saw the animal December 2d, 4th, 5th, 8th and 10th, during which time the pains were entirely absent, and continued to be absent for some ten days, during which time he was exercised and apparently in good health, so much so, that the owner concluded not to sell him as he first intended doing.

On December 20th he was driven, warmed up somewhat, during which time he was hit with a whip, which caused him to make a sudden jump; after reaching the stable he began to breathe rapidly and show colicky pains. At 4:30 P. M., the owner telephoned me to that effect. I found him to have symptoms of congestion of the lungs, temperature rising to 103° F., associated with colicky pains. He ultimately continued to grow worse and symptoms of enteritis were present the next day, and from his condition I gave an unfavorable prognosis. Death took place December 22d, a short time before midnight.

On December 23d, the post mortem was held: the small bowels were inflamed, as was the peritoneum. The right lobe of the liver showed fatty change. After removing the intestines, a large growth of the size of a cabbage head, of hard consistency, situated in the lumbar region towards the base of the cæcum, which on being removed proved to contain a large abscess in its center communicating with the ileo-cæcal artery and involving the right fasciculus of the great mesentery. The whole mass looked of a cancerous nature.

Death was due to enteritis and peritonitis, both probably brought on primarily by the rupture of the suppurative aneurism. And the question may be, did the sudden jump during exercise cause a rupture of the aneurism, with a peritonitis and enteritis, and death?

TETANUS AND ANTITOXINE.

By Jos. M. Good, B.Sc. V.S., Chattanooga, Tenn.

I enclose reports of two cases of tetanus which I treated with Gibier's tetanus antitoxine:

CASE NO. 1.—Was called on November 6th to see a well-bred driving mare belonging to one of our prominent physicians. The mare was rather stiff in the posterior limbs; when excited a little the membrana nictitans projected over the eyes. The mare was in harness at the time. The owner had noticed the animal being sluggish two days before, while he detected some stiffness in her movement the previous day. Upon being questioned about nail prick of the feet, wounds, etc., the

owner said that she had had a nail puncture in one foot about two weeks before, which suppurated a good deal. He kept the foot washed with a bichloride solution and dressed antiseptically. The wound healed up, lameness ceased and he had almost forgotten about the matter.

I diagnosed the case as one of tetanus. The physician became very much alarmed and said that he had very little faith in the efficacy of drugs in treating the case. I suggested using the antitoxine, of which I had just heard. Having used diphtheria antitoxine with good results in his practice the owner readily assented. We ordered by telegraph five bottles of three grammes each of Gibier's tetanus antitoxine. I at once gave the mare an aloetic purgative, and began on a liberal course of diuretics. We also prepared a large, darkened, box-stall. The following is a record of the case:

Nov. 6th.—Pulse 37, temperature 99°, respiration 24; slight stiffness, eyes slightly covered; purgative given.

Nov. 7th.—Pulse 38, temperature 100.5°, respiration 24; stiffness more marked, bowels purging.

Nov. 8th.—Pulse 40, temperature 100.5°, respiration 46; gluteal and buccinator muscles rather tense, purging stopped, still able to chew and swallow.

Nov. 9th.—Pulse 40, temperature 100°, respiration 30; general appearance about the same; injected half bottle of serum at 2 P. M., again at 7 P. M.

Nov. 10th.—Pulse 40, temperature 100°, respiration 30; appeared brighter, good appetite, stiffness no worse; half bottle of serum at 8 A. M. and 7 P. M.

Nov. 11th.—Pulse 38, temperature 100°, respiration 24; animal seemed no worse, injected half bottle serum at 8 A. M. and 7 P. M.

I had to leave the city on Nov. 15th for two weeks on business, but felt confident that the mare would recover. No more antitoxine was used, having used only three bottles; the animal slowly recovered and returned to work in about thirty days from the beginning of the attack.

CASE NO. 2.—Was called on morning of Dec. 19th to see a very large cryptorchid horse. The horse was stiff in hind quarters, and owner suspected tetanus. The animal had had a gravel work out of one foot about three weeks previously. Diagnosed case as tetanus and advised the use of antitoxine. I had two bottles, of three grammes each, left over from last case. Ordered five bottles of antitoxine by telegraph.

Upon attempting to give an aloes ball I found the jaws partially locked. The bowels never purged. Gave diuretics

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the first three days in drinking water. Gave the two bottles of antitoxine during the first forty-eight hours. The antitoxine that was ordered was delayed, and was not received until the afternoon of the 23d. The animal became worse rapidly, and on the third day was unable to swallow water. I gave a full bottle of the antitoxine on the afternoon of the 23d, and one on the 24th. On the morning of the 24th the animal began to get worse rapidly. On the morning of the 25th I quit using the antitoxine. The horse got much worse and got down in the stall late in the afternoon. I ordered the animal killed, but he died within a few hours afterwards.

CASE NO. 3.—On Dec. 17th, I saw a mule with a well-developed case of tetanus. He had had it about ten days. Was still able to chew and swallow food, but was very stiff. As the animal was of but little value I could not induce the owner to let me use antitoxine. A "quack" had charge of the case, but had assured the owner that the animal would die. The quack's treatment of the case consisted in giving five drops of some valuable (?) medicine three times a day on the tongue. Judging from the mildness and slow development of the case, I felt assured that the animal would recover even without the intervention of a scientific horse-doctor. Upon my informing the owner that we often cured cases even without antitoxine, he decided to let me prescribe for the mule. I gave him several powders of potassium iodide and bromide of soda combined. The animal got no worse and gradually got better, and is about well now.

While treating case No. 1 I was called to see two other horses at different times with lockjaw. Both had well-developed cases with the jaws almost wholly locked. I advised their owners to kill the animals, which they did.

While talking with Dr. Trumbower, of Illinois, about tetanus a few days ago, he asked me if I had noticed that several cases often come right along together. I told him that I had never thought of it before, but that I had seen only seven cases during the last year, and that five of them had occurred during an interval of two months, which coincided with his statement.

In regard to the antitoxine, I will say that its chief claim is that of a prophylactic rather than a curative agent. I shall keep a supply on hand in future, and will give it a fair test. I do not consider that case No. 2 had anything like a fair test with the antitoxine, and of course the remedy should not be condemned until it has had a fair test and proved worthless. On the other hand, I would advise all who use it and cure the

first case, not to get too elated, but to remember that the case, like case No. 3, might have recovered even without any treatment at all.

The *modus operandi* of using the antitoxine is very simple, and full instructions accompany each bottle. Each bottle contains three grammes of the powder, which is equivalent to 35 cc. of serum. It can be obtained from the New York Biological and Vaccinal Institute, 1, 3, 5 and 7 Ninety-seventh Street, New York, or from Pasteur Anthrax Vaccine Company, 315 Rialto Building, Chicago, and all that are interested can write them for literature and prices.

TETANUS IN A DOG.

By G. J. GOUBEAUD, D.V.S., Brooklyn, N. Y.

On account of its rarity, the following case may be of interest to the readers of the REVIEW. The patient was a pug dog, male, about three years old, well developed and of medium size. He was suffering from an attack of traumatic tetanus, produced, no doubt, by a rusty carpet tack having entered his paw. When I saw him he was in a most pitiable condition: his whole body was as rigid as a board, ears erect, commissure of lips drawn back, showing teeth, mouth discharging saliva, eyes distorted, nose elevated, tail standing almost straight at times, all muscles standing out in cord-like fashion, jaws rigidly contracted. In short, his general appearance was similar to a case of equine tetanus, as is seen previous to death. Any noise or commotion would throw him into a convulsion. While he would be in the convulsion he would become opisthotonic. At times even, if not for the appearance of bubbles at his nostrils, one would think that he was not breathing. In fact he looked more like a frozen dog than an animated creature. He was disinclined to move, and when he did he seemed as if he were walking upon stilts, his limbs were so rigid. When he would become opisthotonic he would form almost a half circle.

Treatment.—I strongly advised the owner to have him destroyed, but to no effect, for as far as I could determine he was unable to take any nourishment whatever. I was asked for something to quiet him, so I prescribed drachm doses of elix. potass. brom., as often as necessary, to be given with a glass dropper inserted between cheek and teeth. Feeling certain that the animal could live but a short time, I told the owner I would not call again. I left, and heard no more until neighbors of my client informed me that my patient was well again.

Thinking that they were mistaken I paid no heed to them. On the 6th of August, or about four months after I had first seen the animal, the owner brought him to be treated for an attack of eczema. I was asked if I knew him, and I answered that I did not. I was then informed that this was the dog that had had lockjaw, and could not possibly live a day or two at the longest. He was so fat that he could hardly run.

ABSENCE OF THE LEFT CAROTID ARTERY.

By WM. H. P. MONK and G. W. MEAD, Jr., Students at the A. V. C.

As students in the dissecting-room of the American Veterinary College, we recently had an opportunity to dissect a curious development of the terminal branches of the common carotid arteries.

On the right side the carotid, at its termination, bifurcated in two branches, one the external carotid, the other a special trunk measuring about three and one-half inches in length, and then dividing into two branches, one the occipital, the other the internal carotid.

On the left side the occipital originated from the parent trunk, in common with the external carotid, but the internal carotid was missing entirely, and no trace of it could be found.

On removing the brain with a portion of the spinal cord, the following condition is observed: The cerebro spinal of the *right side* is quite large, that of the left apparently smaller. Both give their branches to form the lozenge-shaped arrangement from which rise the median spinal and the basilar trunk. This trunk divides anteriorly into branches; one that remains upon the median line, and running forward to the interpeduncular fissure, divides into branches, which go to anastomose with the median cerebral. The other goes to anastomose with the internal carotid of that side (the right), representing evidently the posterior cerebral.

The right internal carotid, after entering the cranial cavity, describes a double S and forms a single trunk, which, running from the right to the left, arrives at the median line back of the pituitary gland and there divides into two large branches, which pass on each side of the gland, run forward, each one forming the median and the posterior cerebral of both sides.

On this surface of the brain there is no appearance of the left internal carotid. The entire circulation was furnished by the internal carotid of the right side.

The subject was a small horse, some eight years old, in fair dissecting condition, and bearing no external indication of this curious abnormality.

DISTEMPER—ITS SEQUENCES AND FATAL
TERMINATION IN A DOG.

BY DR. W. W. YARD, New York City.

I was called to see a very finely bred pug dog, Nov. 2d, with the history that he had distemper about a month ago. Three days ago he began to twitch and jerk and cry out in his sleep. When I saw him there was a constant twitching of all the involuntary muscles, principally of the hind legs, chest and head; loss of appetite, anxious expression, frequent whining, accelerated pulse and respiration normal. Put him under strychnia and stimulants. Called to see him on the 6th, but no improvement; increased the dose of strychnia, and applied slight counter-irritation to spine. Saw patient on the 10th, and found both front legs completely paralyzed; applied electricity daily, which later was increased to twice a day. This gave very good results, so much so that patient could stagger around the room. Electricity was stopped and only strychnia given. I did not see patient again for about a week, but was kept posted every day or so as to his condition; this was such that he was exercised for half an hour daily. Nov. 23d I was sent word that the dog had a fit. When I saw him he was running around the room in a circle as fast as he could, banging against any obstacle. This would continue for about fifteen minutes, when he would fall down exhausted; at these particular times the dog was thoroughly conscious, then all of a sudden, without any warning, he would start up again. I had blankets and pillows put round in a circle, backed up with chairs to prevent him injuring himself, gave a large dose of opium, and in a little while had him quieted, so I left. Two hours later I called and he was running round the same as before, with head hanging down on the left side. Had ice packs put on head and gave morphine; this had some effect, but in an hour he began to bleed profusely from the nose and died in half an hour. Tried to get a post mortem, but could not.

CYSTOCELE IN A COW.

BY DR. MOYLE, Waterford, Wis.

On December 2, 1895, being called to see a cow, I found her fast in stanchions with a large tumor, the size of a child's head, protruding from the vulva. It was dark in color with its surface excoriated. My first impression was that I had to deal with a case of vaginal polypus, but upon close examination it proved to be a cystocele. Upon inquiring into the

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history of the case I was informed that it was of twenty-four hours duration and that a neighbor who had been called in tried to reduce it, but had failed, and advised the sending for a doctor, first giving it as his opinion that it was the "mother," meaning the foetal placenta.

After emptying the bladder it was reduced with very little difficulty, and though the time was due for the cow to calve the os uteri not showing any signs of dilating, I sutured the lips of the vulva together, with orders to place the animal in a box stall and to be seen at least every three hours, with the expectation that the cow would calve in about twenty-four hours. Animal recovered, but advised owner not to breed again.

RECTAL TUMOR.

By C. H. MARTIN, D.V.S., Dobbs Ferry, N. Y.

I send you a tumor, removed from a patient, for your examination. The subject was a brown mare, very old, some twenty-two years, still able to do light work.

On the morning of July 17th she was found with a tumor protruding from the anus—this was of the size of a child's head—covered by the mucous membrane, red and somewhat inflamed, and was supported by a pedicle which measured about one inch in diameter. As there was but one thing to do—remove it—I had the mare prepared by a mild dose of physic and laxative food, and after a day or two I applied an elastic ligature, thinking I could slough the tumor off and avoid the possibility of a troublesome hæmorrhage. But finding the next day that the growth, though considerably shrunk, had not sloughed off, and on account of the very offensive odor of this mortified mass, I applied an ecraseur on the ligated peduncle and cut the tumor off. Rectal injections of phenyled water were made several times a day for a few days, the wound healed up readily, and the mare is now at her work again.

[The microscopic examination made by Dr. Becket at the American Veterinary College showed the tumor to be of a melano-sarcomatic nature.—EDITOR.]

STRICTURE OF CÆSOPHAGUS DUE TO INFLAMMATION.

By WM. V. LUSK, Veterinary Surgeon Second Cavalry, Fort Wingate, N. M.

Subject, a black gelding, nine years old, fifteen and one-half hands high, and used for cavalry purposes; was noticed to be off his feed one evening, and that he possessed a slight cough and a slight discharge from nose. Examination re-

vealed swelling and soreness in region of larynx. Temperature and pulse slightly increased, respiration a trifle laborious. Diagnosis, laryngo-pharyngitis. After the examination the animal was placed in as comfortable a stable as possible, blanketed and the usual treatment applied. The next morning he was very much worse. Temperature 104° , pulse weak and almost imperceptible, respiration 40 and very laborious. Swelling about larynx increased and very painful, particularly shown when attempting to swallow, or when throat was manipulated externally. Nose elevated, severe cough provoked into violent fits by attempting to swallow. Appetite impaired and thirst increased, but in attempting to swallow the food and water were ejected through the nasal passages. The swelling had extended about half way down the neck and appeared to be located in the pharynx and œsophagus only. The treatment then consisted of antiphlogistics, warm applications to swollen parts and steam to nose. After five or six days of this treatment the febrile symptoms and swelling had subsided, the cough had about disappeared, but the difficulty of deglutition still remained. The appetite had returned, but the animal could swallow but very little of his food, it being nearly all ejected through the nasal passages, which occurred with every attempt to swallow, with as much ease and regularity as though it was a natural function. At this stage of the disease I was slightly at sea as to the exact nature of the trouble, but felt sure that some organic change had taken place in the pharynx and œsophagus as a result of the preceding inflammation. Everything in my power was done to save the animal, but to no avail. He became entirely unable to swallow, grew poor and emaciated and was actually starving to death. I finally lost hopes and recommended that he be shot to prevent death by starvation, which was done.

At the post mortem examination the œsophagus was found to be about one-fourth its natural size, the stricture beginning at the pharynx and extending the entire length of the tube. The muscular coat was pale and shrunk, and the mucous membrane dry and sticky, and quite firmly adhered throughout the greater part of its length. The digestive organs were free from food except the large intestine, which contained a small amount of ingesta. I mention this case because it is uncommon.

RUPTURE OF THE STOMACH.

BY THE SAME.

Subject, a black gelding, six years old, perfectly sound and never known to be sick. One morning when on a prac-

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tice march this horse refused part of his feed, but as he appeared perfectly healthy otherwise, nothing was thought of it, as it is a very common occurrence for young horses to refuse their feed when on their first trip. At six o'clock A.M. he was saddled and started on the march to the next camp. About 8 o'clock A.M. he began to lag, when he was sent to the rear of the column in order that he might take his own time. From that time on he appeared very stupid and occasionally showed signs of colic. His rider, who being a very conscientious man, removed his saddle and equipments and loaded them on a wagon, leading his sick horse the rest of the way to camp, which was reached about noon. The animal then stood perfectly quiet for a few minutes, made several unsuccessful attempts to vomit, and before a dose could be prepared for him he began to tumble and plunge in a frightful manner. Profuse perspiration broke out over the entire body. He bit at his flanks and showed all the symptoms of acute enteritis, except that he made frequent attempts to vomit. In twenty minutes from the time he entered camp he was dead. About three minutes before death the symptoms relaxed and the animal appeared quite easy for a minute or two; then all of a sudden he dropped and after a feeble struggle was dead. At the post mortem examination, which was held immediately after death, a rent about twelve inches in length was found in the greater curvature of the stomach. The edges of the rupture were terribly inflamed and swollen, while the gastric walls a short distance from the rupture appeared perfectly healthy. The stomach contained no food whatever. Considerable masticated food was found in the peritoneal cavity where it had produced terrible inflammation in the parts with which it had come in contact. Tympany was entirely absent.

This makes the second case of rupture of the stomach during the last six months. It is a great mystery to me how it can occur without any apparent cause.

EXTRACTS FROM EXCHANGES.

AMERICAN REVIEW.

INFLUENCE OF FEVER UPON TETANUS.

A. S. Wheeler, V.M.D., New Orleans, La., in the *January Journal of Comparative Medicine and Veterinary Archives*, records the case of a mule affected with apparently fatal tetanus.

the muscles being very rigid and trismus perfectly marked. When death was hourly expected, pneumonia supervened, with extreme pyrexia, which occasioned a revulsion of symptoms, the muscles becoming flaccid, the jaws opening. The patient subsequently died from the gangrenous termination.

PYOKTANIN FOR QUITTOR.

Dr. Wilfried Lellmann, of New York, in an article in the September *Journal of Comparative Medicine*, describes his method of treating cartilaginous quittor with pyoktanin, as follows:

I first apply a lukewarm footbath, of a one per cent. solution of lysol; then, after examining the fistulas with a probe, I introduce a bistoury, provided with a knob at its point, as deeply as possible and make a good cut as the bistoury is drawn outward. If only one fistula is present, I prefer to make a vertical and a horizontal cut, which meet at right angles. If more fistulas are present, I either connect them by cutting or counter-openings, introducing drainage tubes, preferring cutting. Afterwards is introduced a tampon of oakum, saturated with a ten per cent. solution of bichloride, with a well-pressing bandage for twenty-four hours. This enlarges the fistula, and I commence injections of a ten per cent. alcoholic solution of pyoktanin, which seems to have the property of thrusting off tissue which has undergone necrosis. After a few injections, parts of the necrosed cartilage can be removed with forceps. Twelve or fifteen injections are sufficient; during first four or five days twice daily, thereafter once a day, following each injection by tampon and bandage. After injections are completed, wound to be syringed for several days with a solution of iodoform in ether—1 to 7. After this treatment, wound becomes dry and shows no more secretions. To accelerate healing, suppositories are introduced, and kept in position by bandage, consisting of bismuthi dithio-salicylic made with cocoa butter and lanolin. Although there was great lameness in all cases, the horses could be put to work in two weeks and a half.

A NOVEL ACCIDENT.

Veterinary Surgeon Wm. J. Waugh, of the Third Cavalry, U.S.A., reports in the October *Journal of Comparative Medicine and Veterinary Archives*, that he was called in consultation upon a cow which had her oesophagus obstructed in its thoracic portion by a dish-rag; that she was cast and a celluloid

probang inserted, with which the body was dislodged and forced into the rumen. When it was attempted to withdraw the probang, it broke at the joint, and the lower half remained in the gullet. She was released, and on the following morning was recast, the rumen opened in the left flank for five inches, admitting the operator's hand, by which procedure the offending object was found partly in the rumen and partly in the œsophagus. Its removal, and a proper closure of the opening made, enabled the animal to make a good recovery, all of which has caused the doctor to resolve not again to use a celluloid probang.

HYPERTROPHIED CLITORIS.

Dr. A. W. Clement, of Baltimore, uses the pages of the October *Journal of Comparative Medicine and Veterinary Archives* to report the case of a two-year-old hackney filly, which possessed an enlarged clitoris, was served by a stallion, and refusing his further embraces, was turned in a field with broodmares, when she began riding them, going through the motions of copulation, at which time the clitoris would become erect and protrude from the vulva four or five inches, and at the culmination of the act would ejaculate a fluid; all this while she refused the stallion. Amputation of the clitoris resulted in a cessation of her amorous antics, and the wound healed perfectly.

RUPTURE OF THE BLADDER.

Dr. Wm. B. Kille, Woodstown, N. J., records a case of this rare accident in the *Veterinary Magazine*, Philadelphia, the rupture being sufficiently large to admit the index finger, located "*a short distance from its entrance into the vagina.*" It is not clear whether the observer means that the bladder or the urethra was the seat of the lesion. In either case it is a rare accident from straining, which in this instance was undoubtedly the cause, as the mare was found turned partially around in her stall, wedged effectually across it, and showing much evidence of a long and violent struggle to extricate herself. The accident to the bladder was observed at the post mortem, two days after its occurrence.

DR. W. F. LAVERY, Chilicothe, Ohio, has recently accepted the position of Lecturer and Demonstrator of Surgery at the Ohio State University, Veterinary Department. Dr. Lavery is the right man in the right place.

SOCIETY MEETINGS.

NEW YORK COUNTY VETERINARY MEDICAL ASSOCIATION.

The regular meeting of the Veterinary Medical Association of New York County was held on Tuesday evening, Jan. 7, 1896, at 8.45 o'clock, with the President, Dr. Huidekoper, in the chair.

The Secretary being delayed, Dr. Neher was requested to act as Secretary *pro. tem.*, and proceeded by calling the roll, to which the following members responded: Drs. Amling, Bretherton, C. C. Cattanach, J. S. Cattanach, J. J. Cattanach, Delaney, Dickson, Ferster, Foy, Gill, Hanson, Huidekoper, Neher, O'Shea and Sherwood.

The President appointed to act as a Board of Censors, H. D. Hanson, J. S. Cattanach, J. E. Ryder and J. H. Ferster; and as Committee on Legislation, Arthur O'Shea, J. E. Ryder, S. S. Field, Herbert Neher and F. W. Turner.

There being no papers, Dr. Sherwood spoke a few words on mange; and also agreed to read a paper at the next meeting.

Dr. Ferster then reported a case of azoturia, with partial paralysis in the hind leg as a sequelæ, and questions if case will recover.

Dr. Amling reported two similar cases.

Dr. Neher reported six cases of azoturia with similar symptoms in fore-legs.

At this point the Secretary arrived and took his chair, and a general discussion on azoturia and its treatment continued.

Dr. Ferster asked the chair for his after-treatment in azoturia when any of the above sequelæ remained; and he recommended full doses of potassii iodidum for a time and turning the patient out.

Drs. Neher, O'Shea and J. S. Cattanach gave their views on treatment in different stages of the disease.

The President then asked the meeting their pleasure in regard to having the minutes of the previous meeting read, now that the books were on hand, and it was moved and seconded that it be deferred until the next meeting.

The question of tetanus and its treatment next came up, and was discussed generally by the members.

Dr. O'Shea reported recovery after the use of nicotine in full doses on the tongue, followed by digitalis and whiskey.

Dr. J. S. Cattanach reported a case in which recovery followed one injection of three grains of morphine.

Dr. Ellis reported a case in which all the characteristic symptoms were well marked, but not far advanced, in which recovery followed one injection of 25 cc. tetanus antitoxin.

Moved and seconded that the discussions close. Carried.

Moved and seconded that the meeting adjourn. Carried.

The regular meeting of the Veterinary Medical Association of New York County was held on Tuesday evening, Feb. 4, at 8.30 o'clock, with the President, Dr. Huidekoper, in the chair.

On roll call the following members responded: Drs. Am-ling, C. C. Cattanach, J. S. Cattanach, J. S. Cattanach, Jr., Dickson, Delaney, Ellis, Ferster, Foy, Giffen, Gill, Huidekoper, Hanson, Jackson, Lamkin, Lellman, MacKellar, Neher, O'Shea, Ryder, Serling and Turner.

The minutes of the last meeting were then read and approved. The minutes of the December meeting were then read, and, after slight correction, approved.

Dr. Gill, Chairman of the Board of Censors, reported that the board recommend that Dr. Johnson be notified to be prepared to meet charges at the next regular meeting.

It was then moved and seconded that the Secretary be authorized to formulate charges against S. K. Johnson, and forward same to him, and that the Secretary notify Drs. Turner and Finlay to have all their evidence ready to be acted upon at the next regular meeting.

The Board of Censors also recommended that a resolution be sent to the Board of Health to the effect that all appointments for milk or meat inspectors be made from graduates of veterinary colleges. Moved and seconded that the President appoint a committee of five to attend to it. Carried.

The Board of Censors also recommended that the Society endeavor to hold its meetings at the Academy of Medicine, suggesting that such a course would add to its prestige. It was then moved and seconded that the President should appoint a committee of three to ascertain the cost of a room in the Academy of Medicine, suitable for the Society's meetings, and report at the next meeting. Carried.

Dr. O'Shea, Chairman of the Committee on Legislation, then gave a lengthy report of the able work done by that committee, assuring the members that the extension bill for registration was killed at least for this year, and that the jury bill would probably be through by the next meeting. It was

then moved and seconded that the report be accepted and placed on file. Carried. Moved and seconded that a vote of thanks be extended to the Committee on Legislation. Carried.

Dr. Lellman then read a paper on "Calcified Nodes in Lungs of Horses," which was afterward discussed by the members.

The President then appointed the following committees: As a committee to draft resolutions to the Board of Health, in reference to the appointment of meat inspectors, Drs. H. D. Gill, J. S. Cattnach, H. Neher, J. E. Ryder and F. W. Turner. As a committee of three to ascertain the cost of a room at the Academy of Medicine, Drs. H. D. Hanson, J. H. Ferster and T. Delaney.

Moved and seconded that a vote of thanks be extended to Dr. Lellman for his paper. Carried.

Adjourned.

R. W. ELLIS, D.V.S., *Secretary*.

ALUMNI ASSOCIATION OF AMERICAN VETERINARY COLLEGE.

The members of this Association will meet in the lecture-room of the College Building, 141 West 54th Street, New York City, on Wednesday, March 25, at 2.30 P.M., and a large attendance is earnestly desired. In the evening they will attend commencement exercises of the college at Chickering Hall, after which they will adjourn to Clark's, in 23d Street, where a programme of great interest will be delightfully intermingled with much that is of value to material life and lots of good fellowship.

OHIO STATE VETERINARY MEDICAL ASSOCIATION.

The thirteenth annual session of the Ohio State Veterinary Medical Association, convened in the library of the Park Hotel, Columbus, Ohio, on the evening of January 13, 1896.

The meeting was called to order by the President, Dr. J. D. Fair, at 8 P.M., and he opened the meeting with a few very appropriate remarks, calling attention to the goodly number present, to the fact that a committee would report some important amendments to our State veterinary law, which he hoped the Association would give especial attention to, and several other minor matters.

Roll called showed the following veterinarians to be present: F. E. Anderson, Findley, O.; G. W. Butler, Circleville; H. M. Ball, Columbus; S. E. Bretz, Little Sandusky; J. H. Blattenburg, Lima; F. B. Cotton, Mt. Vernon; L. W. Carl, Columbus; G. W. Cliffe, Upper Sandusky; P. A. Dillahun,

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Springfield; J. D. Fair, Berlin; J. E. Foster, Coshocton; O. D. Franks, Springfield; W. H. Gribble, Washington C. H.; T. B. Hillock, Columbus; W. R. Howe, Dayton; C. V. Hedges, Circleville; C. E. Leist, Columbus; J. C. Meyer, Cincinnati; S. D. Meyer, Wilmington; J. A. Meagher, Glendale; J. V. Newton, Toledo; J. O. Price, Lancaster; Walter Shaw, Circleville; E. H. Shepherd, Cleveland; S. S. Snyder, Cincinnati; W. J. Torrence, Cleveland; W. E. Wight, Delaware.

Minutes of the last meeting read and approved. The chair ruled that the first order of business was the nomination and election of officers, and called for nominations. For President, Drs. Hillock and Howe nominated Dr. E. H. Shepherd; no opposition; the rules were upon motion suspended and the doctor declared elected. Drs. Hillock and Torrence nominated Dr. W. E. Wight for First Vice-President; no other nominations, the rules were again suspended and the nominee declared elected. For Second Vice-President, Drs. Butler and Wight nominated Dr. W. R. Howe, no opposition; the doctor was declared under suspension of the rules to be elected. Drs. Torrence and Carl nominated Dr. W. H. Gribble for Secretary, and Drs. Howe and Shaw nominated Dr. T. B. Hillock for Treasurer; in both cases no other nominations were made, so under suspension of the rules both were declared elected.

President J. D. Fair then stated that the officers of this Association for the year 1896, were: President, E. H. Shepherd; First Vice-President, W. E. Wight; Second Vice-President, W. R. Howe; Secretary, W. H. Gribble; Treasurer, T. B. Hillock.

Next order of business was the presentation of applications for membership; and the following names were read by the Secretary, each of which was voted upon separately, and each one declared elected to membership: Dr. P. A. Dillahun, Springfield, O. (Ontario Veterinary College, 1893), vouched for by Drs. S. E. Bretz and T. B. Hillock; Dr. Sidney D. Meyers, Wilmington, O. (Ontario Veterinary College, 1894), vouched for by Drs. Walter Shaw and W. R. Howe; Dr. G. W. Cliffe, Upper Sandusky, O. (Ohio Veterinary College, 1892), vouched for by Drs. F. E. Anderson and S. E. Bretz; Dr. Louis P. Cook, Cincinnati, O. (Ohio Veterinary College, 1895), vouched for by Drs. W. R. Howe and J. C. Meyer, Jr.; Dr. O. D. Franks, Springfield, O. (Ontario Veterinary College, 1885), vouched for by Drs. T. B. Hillock and W. J. Torrence.

The Secretary introduced each new member present, who in turn responded with a few well chosen remarks.

A large amount of correspondence was now read by the Secretary, some of the communications bringing out considerable discussion, as they were thought to be out of place, and that the writers should be criticised. Almost every member present took part in this discussion; but the matter was finally disposed of satisfactorily.

Dr. G. W. Butler now read a carefully prepared paper on "The Use of Anæsthetics in Veterinary Practice,*" which was well debated and ably defended.

Dr. Shaw: I give chloroform rapidly and but little at a time, have performed the operation for roaring by using $\frac{3}{4}$ iss. I have tried to kill horses by chloroform inhalation, but so far have failed.

Dr. Cotton thought veterinarians should use anæsthetics oftener, to use them at all times when possible to relieve pain, one trouble being that people would not pay for it. He gave chloroform with plenty of air.

Dr. J. C. Meyer: I believe that the use of anæsthetics has marked a very great advance in veterinary practice; my patrons approve of it. Years ago I used the method, until an animal fractured his spine during the struggles, but lately I have again gone to using it, but in a different manner. I now give chloral hydrate, $\frac{3}{4}$ i, previous to inhalation of the chloroform. I then put the animal in slings, lifting almost off the floor, administer the anæsthetic, then let it down. I give chloroform to dogs by tying a cloth over some vessel containing a sponge (say a tumbler), then cutting a hole in the cloth large enough to get the dog's nose in, this keeps the animal's eyes away from the drug.

Dr. W. R. Howe: I think the mixture known as the A. C. E. mixture is best for horses, but is too slow in its action for dogs. I usually put dogs under the influence of ether, then keep them so with the A. C. E. mixture. I usually give horses chloral hydrate, $\frac{3}{4}$ iss; simple syrup, $\frac{3}{4}$ iij; water, Oiss, previous to using any anæsthetic, and I believe it acts well, and saves chloroform, etc.

Dr. W. J. Torrence: It may be that I am a crank on the use of cocaine, but I perform a goodly number of operations with the use of it. I firmly believe that a large number of our cases of chronic cough is due to the administering of chloral and its irritant action. I had several cases die where chloral had been used, and on post mortem the mucous

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lining of the œsophagus and stomach were found eaten off in patches. When using it now, I give it in Parke, Davis & Co.'s capsules.

Dr. E. H. Shepherd: I have never failed to kill a horse with inhalation of chloroform, although in one case, I confess, I used two pounds. It seems to me that there are a great many cases where we should consider the suffering of the animal during the administering of the anæsthetic, and the effect following its use. Are there not many operations where the operation itself causes less pain than the anæsthetic? One can be too cruel in the use of the twitch. I am satisfied that chloral is often given so strong as to cause sloughing of the mucous membrane.

Dr. Howe: I don't believe sloughing or even irritation will take place if one and a half pints of water or three ounces of simple syrup be added to each dose of chloral.

Dr. Butler: I believe Dr. Meyer should have discontinued the use of his confining apparatus, instead of the use of the chloroform; the old English hobble, as it is called, was never fit to throw or confine an animal. As for the patrons not desiring to pay for the use of anæsthetics, personally I shall use them in my practice for my own personal feelings and benefit, even if I have to perform operations at the same price as I would without it.

Moved by Dr. Shepherd, seconded by Dr. J. C. Meyer, that the discussion close, the essayist be given the thanks of the Association, and that the essay be turned over to our Secretary for publication. Motion carried.

By the Chair: At our semi-annual meeting, a committee was appointed to draft amendments to the present State veterinary law, and present them to this meeting for consideration. The Secretary will now read the amendments, when the whole will be turned over to you for discussion.

The Secretary first read the law, section by section, just as it now reads, then read the proposed amendments. The discussion which followed was naturally a lengthy one; but it was marked by a unity of action, by the fact that concessions must be made, which, had it been displayed eight years ago, Ohio would have been to-day in the front rank of States having veterinary medical laws. By practically unanimous action, it was decided to be unwise to ask for too much legislation at the present session of the legislature, contenting ourselves if we could secure an amendment compelling all those eligible to practice under the law to register with the Secretary of the Board of Veterinary Examiners, within a given

length of time, their name, place of practice, whether or not a graduate, if so from what school or college, etc. A committee composed of Drs. W. H. Gribble, W. R. Howe, and J. D. Fair was appointed to wait on the State Board of Veterinary Examiners, which hold a session in the State House to-morrow at 10 A. M., and ask their aid in securing these amendments. This State Board contains the Secretary of the State Board of Health and the Secretary of the State Board of Agriculture, so their aid would be of great assistance to us.

It being now after midnight, the meeting adjourned to meet again to-morrow morning at 8 A. M.

SECOND DAY, JANUARY 14TH.

Meeting called to order by President Fair, at 8:15 A. M.

The chair appointed as a committee to audit the books of the Association, Drs. G. W. Butler, S. E. Bretz, and W. Shaw.

Moved by Dr. Howe, seconded by Dr. Butler, that hereafter the Secretary send no invitation to our meetings to suspended or expelled members. This motion had especial reference to a communication received from a member who, it was claimed, withdrew to save himself from being expelled. This brought out a debate, somewhat personal at times, but which showed that the motion would not accomplish that which it was desired, as one withdrawn member was on equal footing with another, no matter what caused the withdrawal. As an amendment, Dr. Wight moved, and Dr. Cliffe seconded, that the Secretary continue to send invitations to all veterinary graduates in the State of whom he had the address. Amendment carried.

Drs. Gribble, Howe, and Fair now left the meeting to go to the State House to confer with the State Board of Veterinary Examiners.

Moved by Dr. W. Shaw, seconded by Dr. Butler, that we now proceed to select a meeting place for our semi-annual meeting.

Dr. G. W. Cliffe, named Columbus, which was ably supported by Dr. W. J. Torrence, and finally Columbus was selected, the time to be during the mid-summer race meeting.

The committee appointed to audit the books now reported to wit:

We, your committee appointed to audit the books of the Ohio State Veterinary Medical Association, beg leave to report that we find the books kept in good order, and that we find a balance in the hands of the Treasurer of \$294.54.

WALTER SHAW, G. W. BUTLER, S. E. BRETZ, *Committee.*

Dr. S. E. Bretz now read a paper reporting the following cases:

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CASE NO. 1.—Subject was a chestnut gelding owned by R. Swihart, of Little Sandusky. The latter part of October the owner came to my office and said that he had a three-year-old horse that did not seem to thrive well, the history being as follows: Horse worked all right, was a free driver, would eat well, lick the manger, gnaw the fence, and would lie down more than his other horses did; the horse had done no good for six months. I diagnosed the case as chronic indigestion, and gave treatment for the same, and told the owner to bring the horse down to my office if he was no better when the medicine was used. On Nov. 2d, I was requested to see the horse, as he was unable to move; on my arrival I found the horse lying flat on the ground, and occasionally would rise, paw with one forefoot, look around at side, then lie down, and remain there for half hour or more. The pulse and temperature were normal, but the bowels had not moved that day. I diagnosed it as a case of impaction, gave a pill of aloes, calomel, nux and belladonna in small doses every two hours, and left chloral hydrate to keep down severe pain, should it arise, and told the owner I would be back the next morning. On my return, found the bowels had responded to the action of the cathartic, but all other symptoms were the same as the day before. I saw the horse in the evening, and found him the same. I then told the owner that I suspected an abnormal growth located in the abdominal cavity. Horse died the next day, with all the symptoms of enteritis. Post mortem revealed a tumor about the size of a man's head located in the mesentery of the small intestines, to which the walls of the intestine firmly adhered, but their caliber was not cut off. This tumor was hard, and cut almost like cartilage, and contained about two ounces of pus. This is the third case of this kind that I have seen, and all of them in horses less than four years old.

CASE NO. 2.—On Nov. 10th, I was called to see an Ambassador mare, owned by T. C. Daughimer. Mare had had no trouble to foal, but post-partem hæmorrhage followed. Gave ergot every half hour until three doses were given; inserted cloths into the uterus to cause uterine contractions and let them remain there for an hour; applied bandages to the abdomen, and the hæmorrhage was stopped. The next day I was sent for, saying the mare would not eat. I found her with back arched, looking around to side, stamping with hind feet and frequent attempts to urinate. I discovered I had a case of metritis to deal with. Gave laxatives, morphia alternately with hyposulphite of soda, and injections of a weak

solution of carbolic acid. The mare seemed to recover. In a few days I was again called, the owner saving the mare was doing well except occasionally a gush of blood would come from the vagina. On examination at the posterior-inferior part of vagina, I found an opening that would admit a half inch rubber tube to the extent of fifteen inches. The sinus was surrounded by a hard swelling leading upward and forward along the left side of the wall of the vagina, and terminating in an enlargement about six inches in diameter on the left side of the uterus. By pressure on the enlargement, following the sinus back, I removed large quantities of clotted blood. I realized that I had a case of secondary hæmorrhage, gave tonics, with injections of weak solution of carbolic acid twice daily. Mare has recovered, with no trace of enlargement in the uterus nor vagina.

Considerable discussion followed the reading of these two cases, which was participated in by Drs. Wight, Torrence, Shepherd and Butler.

Motion made by Dr. Wight, seconded by Dr. Torrence, that Dr. Bretz be thanked for his paper, and the same handed to the Secretary for publication. Carried.

Dr. T. B. Cotton, as Chairman of the Committee on Veterinary Education, gave a verbal report, which was well received and attentively listened to.

A motion was made, duly seconded, and on vote declared carried, that the report of Dr. Cotton be accepted and the committee continued. Part of this motion is necessarily null and void, as our by-laws give the incoming President the privilege of appointing some committees, amongst them the Committee on Veterinary Education.

Dr. Torrence introduced the subject of relieving a gas-distended stomach by means of a nasal probang, or by direct puncture of the stomach with a trocar. A difference of opinion existed as to whether it was possible to use a trocar in this manner, some thinking it impossible, while others thought it not fraught with any very great degree of danger. Try it, is our advice.

Dr. G. W. Cliffe related a very interesting case, in which, at post mortem, there was found a dilated and diseased portion of the œsophagus; near its termination at the stomach. The dilated sac was capable of holding a half gallon; and the passage from this portion into the stomach appeared completely closed. The diseased portion had the appearance of being cancerous.

Dr. E. H. Shepherd reported a peculiar case of a spitz dog

that exhibited the trait of catching flies even when no flies were about. Its appetite was good, yet it became quite thin in flesh. It finally recovered under treatment, tonic and alterative.

Dr. Torrence mentioned the case of a dog with internal canker of the ear, from which he removed the petrous portion of the temporal bone, and the operation was followed by recovery.

• Dr. Shaw reported several interesting cases in dogs.

Dr. Butler related his experience in the operation of gastro-hysterotomy on sows, having had two successful operations out of a number performed.

Dr. Cliffe had so operated on nineteen sows that had lived; and he believed there was less danger in the operation than in trying to remove the pigs with sharp hooks.

The committee to confer with the Board of Veterinary Examiners now returned. Dr. Gribble reported having met with them, being accorded a very kindly reception. He stated they had explained that this Association was unanimous on the subject of amendments to the law, and desired the aid of the Board in trying to obtain them. Previous to our leaving this meeting this morning, although the committee left uninstructed, there was considerable talk as to the legality of the present veterinary law; until a majority of us almost believed it unconstitutional on account of a three years clause in Sec. I., and rather than proceed with an illegal law a great many thought that the better way out was to proceed anew, by trying to enact a law or get an amendment to the present one, allowing *all* those in practice to continue by simply registering within some given length of time; but compelling all those *entering* practice after the passage of the law to pass the examination of the State Board of Examiners, no matter where or from what school or college they may have received their diplomas; and that no others, except those having diplomas, could *enter* practice at all after the passage of the law. Our greatest opposition to the present law comes from an unexpected quarter, not from the empirics, but from those graduates who graduated previous to the passage of the law, but within the previous three years limit, the majority refusing to go before the Board of Examiners, and, in fact, organizing to fight the law. They being fresh from college, one could reasonably expect them to pass a good examination, especially as the Board of Examiners adopted a rule to govern themselves for a reasonable time, viz., asking only an average of sixty per cent. on examination, which rule was publicly

known; and we had expected these new graduates would avail themselves of the law, if only for the general good of the profession they had adopted as a means of livelihood. Of course those who well knew they were unfit to practice, and knew their inability to pass any examination, no matter if they *had* a diploma, we expected opposition from; but when some of our best young graduates joined this opposition and lowered their dignity to associate with the veriest quacks, for the sake of fighting a form of examination which they themselves could readily pass, we are at a loss for a reason. It is well known that no law can be obtained to elevate our profession that will not cause some few of us inconvenience, and allow some others to practice who are totally unfit; but one would expect that the graduate fresh from college would be the last to oppose a simple professional examination, for of what use is a law without examination, when as much difference exists in the curriculum of our so-called veterinary colleges as between a country district school and a normal college. These facts were stated to the examining board and we were informed at this conference that the Attorney-General, an ex-Attorney-General and an able lawyer, who is a State Senator, had all given as their opinion that the law was constitutional just as it now read, and a suggestion was made that if we had our doubts, why not test it in the courts; surely there is material enough for a case; in fact, why not have a friendly test, by some veterinary surgeon being sued, who is willing.

Dr. Carl moved, and Dr. Meyer seconded, that the report of the committee be accepted and the committee continued. Motion carried.

Dr. Fair thought we should now watch the laws, and as soon as we saw our amendment mentioned every member of this Association should see his representative and State Senator and work on them in favor of our law.

Moved by Dr. Howe, seconded by Dr. S. Meyer, that this Association, through its Secretary, request the Ohio Board of Veterinary Examiners to publish in our veterinary journals, or furnish our Secretary, for publication, the names and residences of all persons submitting to their examinations, and the result of the same. Motion prevailed.

Motion was made by Dr. Cotton, seconded by Dr. Howe, that the Secretary be instructed and empowered to purchase a new satchel, in which to carry the Association's books and papers. Carried.

Dr. Gribble made the motion, and Dr. Carl seconded, that

Dr. Hillock be appointed a committee of one to convey the thanks of this Association to the proprietor of the Park Hotel for his kindness in granting us the use of the library for the holding of the session. Carried.

No other business appearing, the Association adjourned to meet in Columbus during the mid-summer race meeting, the Secretary to notify each member of the date whenever convenient.

This session was characterized with a most excellent meeting-place, almost perfect unanimous action on the legislative question, and a most enjoyable time both socially and professionally. Not a person present but who considered himself well repaid for time and expense in coming.

President Dr. E. M. Shepherd appointed the following committees for 1896:

Committee on Contagious Diseases: Drs. J. D. Fair, Walter Shaw and L. W. Carl.

Committee on Veterinary Education: Drs. J. C. Meyer, Jr., G. W. Butler and S. D. Meyer.

The Secretary desires to call the attention of all the members of committees to the fact that they have important duties to perform, and that the Association expects them to perform them, and also expects reports on the subjects.

W. H. GRIBBLE, *Secretary*.

WASHINGTON, C. H., O., Feb. 13, 1896.

To the Veterinarians of Ohio:

At the last meeting of the Ohio State Veterinary Medical Association it was voted to meet in semi-annual session in Columbus, Ohio, during the summer race-meeting. Since then it has been publicly announced that the United States Veterinary Medical Association would meet in annual session in Buffalo, New York, on Sept. 1st, 2d and 3d, and we have received several letters from *our* members asking if Ohio's semi-annual session could not be postponed to the same place and time as the U. S. V. M. A., where we could reap much benefit, renew acquaintances, etc., some thinking they could not attend two different meetings this summer. Will all the members of the Ohio Association who see this notice kindly write the Secretary, stating their views on the matter?

W. H. GRIBBLE, *Secretary*.

MAINE VETERINARY MEDICAL ASSOCIATION.

The semi-annual meeting of the Maine Veterinary Medical Association was held at the Preble House, Portland, Jan. 14.

Among the members present were: Drs. George H. Bailey, Deering; H. H. Choate, Lewiston; F. W. Huntington, Portland; W. S. Lord, Portland; A. Joley, Waterville; A. Long, Lewiston; C. W. Purcell, Biddeford; F. M. Perry, Houlton; F. L. Russell, Orono; W. L. West, Ellsworth.

The following officers were elected for the ensuing year: President, D. F. Russell, Orono; Vice-President, F. W. Huntington, Portland; Secretary, W. L. West, Ellsworth; Treasurer, A. Joley, Waterville. Executive Committee—H. H. Choate, Lewiston; F. W. Huntington, Portland; F. L. Perry, Houlton.

Dr. F. L. Stevens, of Farmington, was elected to membership.

An interesting paper on "Hæmorrhagic Enteritis,"* was read by Dr. W. L. West, of Ellsworth, and discussed by Drs. Purcell, Bailey, Russell and Choate.

Dr. George H. Bailey read an article on the tuberculin test as applied to animals, which was discussed at some length by the various members, also the different preparations of tuberculin in use. Koch's tuberculin was adopted by the society as being the most reliable in use.

It was unanimously voted that the price for applying the tuberculin test should be \$1.50 per head in lots of twenty head.

The meeting adjourned to meet in Lewiston July 15th.

W. L. WEST, *Secretary*.

NEW HAMPSHIRE VETERINARY MEDICAL ASSOCIATION.

The ninth meeting of the New Hampshire Veterinary Medical Association was held in the Eagle Hotel, Concord, on February 4th.

The meeting was called to order at 11.30 A.M., by Dr. Russell. Minutes of the previous meeting were then read and accepted.

The following answered to the roll call: Drs. Russell, Macguire, Abbot, Wilkinson, Lilico and Pope.

Dr. Russell then made a short address concerning the usefulness of the Association, the necessity of attending its meetings, etc., and moved that the by-laws be changed relative to the time of meetings, making them quarterly instead of monthly; seconded by Dr. Wilkinson and carried unanimously.

The Secretary was instructed, by vote of the Association, to read the communication from the Army Legislation Committee of the United States Veterinary Medical Association,

* Will be published in the April REVIEW.

including letter, bill proposed and reasons why the veterinary service of the army should be improved. The subject being fully discussed, the Secretary was asked to send resolutions and copy of the bill to each and every member of Congress coming from New Hampshire.

No further business being before the meeting, Dr. Russell was called and read a very interesting paper on "Heredity," treating the subject from a human as well as an equine standpoint, the simile rendering the subject very instructive. Discussion followed, bringing out many interesting points. Meeting adjourned at 1.30 P.M. until May.

L. POPE, JR., M.D.V., *Secretary*.

INDIANA ASSOCIATION OF VETERINARY GRADUATES.

This Association met in the parlors of the Hotel National, Muncie, on December 10th. The President, Dr. J. E. Cloud, being absent, the Vice-President, Dr. F. W. Meyers, took the chair, the following members being present: F. A. Bolser, New Castle; J. W. Klotz, Noblesville; F. W. Anderman, Hartford City; J. S. Culvert, Portland; O. L. Boor, Muncie; J. C. Rodgers, Anderson. Visitor, A. W. Bitting, of Perdue University Veterinary Department.

The minutes of the previous meeting were read and approved and the reports of the Secretary and Treasurer were also read and approved.

On motion, the Association proceeded to the election of officers for the ensuing year, which resulted as follows: Dr. F. A. Bolser, President; Dr. F. W. Meyers, Vice-President; Dr. O. L. Boor, Treasurer; Dr. J. C. Rodgers, Secretary. Board of Censors, Drs. Culvert, Klotz and Anderman.

On motion, the name of Dr. A. W. Bitting was proposed for membership, and he was elected, after which we repaired to the dining-room of the hotel, where a very sumptuous repast was enjoyed, not only by the members, but by the guests, who were Drs. Green, Going, Jackson, and two newspaper reporters, all of Muncie, after which the Secretary was appointed toastmaster. The following gentlemen responded: "Mine Host," O. L. Boor; "Our New President," F. A. Bolser; "Our Live Stock Sanitary Commission," F. A. Bolser; "The Changes of One Hundred Years," F. W. Meyers; "The V. S.'s Relation to the M. D.," J. W. Klotz; "What I Know About Veterinary Legislation," F. A. Bolser; "My Experience in Veterinary Education," A. W. Bitting; "The Press," J. S. Culvert; "Our Secretary for 1896,"

J. C. Rodgers. It is needless to say every person present enjoyed themselves.

The meeting was called to order on the 11th by the President.

On motion, the Secretary was instructed to write Dr. J. W. Lafever in regard to violating Section 6, Article IX, of our By-laws.

On motion, the Association as a body were willing to assist Dr. Bitting in promoting the advancement of veterinary science by reporting all cases to the doctor, who will furnish blanks for the same.

The resignations of the following gentlemen were read and accepted: J. E. Cloud, L. Hoover, Richmond, and J. W. Cook, Goshen.

On motion, we meet in Lafayette in July next.

The following gentlemen proposed papers for our next meeting: O. L. Boor, F. W. Anderman, J. S. Culvert, A. W. Bitting, J. W. Klotz, W. B. Wallace, and C. F. Bell.

Adjourned.

J. C. RODGERS, *Secretary*.

GERMAN VETERINARY SOCIETY OF NEW YORK AND VICINITY.

The German Veterinary Society held its regular monthly meeting, February 11th, in Newark, the President, Dr. L. R. Sattler, occupying the chair.

There were present, Drs. Sattler, Serling, Leiss, Turner, Ogden and Ancker.

After the regular business was finished, different cases from practice were reported and discussed, after which a paper on "Endocarditis,"* was read by Dr. Edwin Ancker.

The next meeting will be on Wednesday, March 11th, in Newark, at the office of Mr. Charles Reichle, corner of Bowery and Freeman Street.

EDWIN ANCKER, *Secretary*,
167 West Thirty-first Street, New York City.

VIRGINIA STATE VETERINARY MEDICAL ASSOCIATION.

The fifth regular meeting of this Association was held in Richmond, Jan. 2, in the Veterinary Hospital of Dr. W. H. Harbaugh. The meeting was called to order at 10 A. M., by the President, Dr. Harbaugh.

After the reading and approval of the minutes of the previous meeting, the report of the Board of Censors was read. Dr. Thos. M. Sweeney, V.S., of Richmond, and Dr. W. F. Henderson,

* Will be published in the April REVIEW.

M.D., of Blacksburg, were elected to membership. Dr. Geo. Ben. Johnston, M.D., of Richmond, was elected an honorary member.

The Committee on Jurisprudence and Legislation, through their Chairman, reported as follows:

To the Virginia State Veterinary Medical Association:

GENTLEMEN:—On Sept. 25, 1895, a negro blacksmith was tried in the police court of the City of Richmond, on the charge of cruelty to an animal, for having burnt a horse's mouth with a heated iron to cure the lampas.

The case was prosecuted by the Society for the Prevention of Cruelty to Animals, and was stubbornly contested by the defense. Five veterinary practitioners, three medical doctors, one dentist, and two horsemen testified that the practice of burning for the condition called lampas was cruel and unnecessary. Many other witnesses were present to testify to the same effect, but the justice said the prosecution had introduced enough evidence.

The owner of the horse that was burnt testified that the horse improved after the burning; three liverymen testified that the operation was beneficial, and that after horses were burnt they always regained their appetites. The defendant testified that he had burned between 1,500 and 2,000 and had never seen any bad results.

Counsel for the prosecution requested that if a fine was imposed on the defendant, the fine be remitted, as this was only intended as a test case.

In summing up, the justice said he must be governed by the expert evidence, and was compelled to decide that the operation was cruel, but as it had been a long-established custom, and as he did not think the blacksmith intended any cruelty, he would discharge him, but any other cases brought before him would be tried on their merits.

As this was the first case of the kind ever prosecuted in this State, I consider the decision of the court fair and just. I also consider it a great victory for the veterinary profession, as it will effectually check the barbarous practices of the many pretenders who dupe the ignorant horse-owners.

I reported this case to the President of the S. P. C. A., with the request that a test case be made of it, with the hope that a favorable decision could be obtained in order to stop a severe infliction of pain for an entirely imaginary condition. Ever since I have been a veterinarian I have carefully looked for a disease of the bars of young horses' mouths, and I have never seen in the condition called lampas the slightest evidence of disease. No such disease exists; the condition is normal and the ignorant should be taught not to interfere with it. Abnormal condition of the gums that require attention does not necessitate any interference with the bars. We should cease to use the term "lampas," even in connection with disease of the gums.

Respectfully,

W. H. HARBAUGH.

From this same committee a report was made upon the subject of legislation, which elicited a great amount of discussion. The action of all the States to the north of Virginia in the matter of stringent veterinary legislation, by driving a horde of quacks into this State, forces upon this Association the careful consideration of this question.

It was finally agreed to ask the legislature now in session to give us a law creating an examining board. A law practically the same as that governing the practice of medicine in this State, modified to meet the requirements of the veterinary profession.

A recess was taken to attend a clinic at the Old Dominion Hospital, by invitation of Dr. Geo. Ben. Johnston. The Associa-

tion was delightfully entertained by the doctor in the hospital amphitheatre by an entertaining talk upon the various intricacies of aseptic and antiseptic surgery, illustrating his remarks.

Afterward the Association was entertained as the guests of Dr. Johnston in the faculty-room of the Medical College of Virginia, at an elegant collation.

The Association re-convened at 5.30 P.M., and the Committee on Resolutions reported as follows:

Whereas, Murrain, or Texas cattle fever, exists in this State annually to a much greater extent than is generally known, destroying many cattle during certain seasons of the year, and almost threatening ruin to the cattle industry of the State, and

Whereas, Tuberculosis exists to an alarming extent among dairy herds of the State, as proven by the best known means of diagnosis, viz., the tuberculin test; as an instance, one herd of one hundred and thirty-four head of cattle in the vicinity of Richmond, formerly supposed to be healthy, tested by experts from the U. S. Department of Agriculture, showing 71 per cent., or ninety-five head diseased, and

Whereas, Virginia has no efficient laws for the control of these or any other infectious diseases of animals, and

Whereas, The U. S. Department of Agriculture has no power to interfere with the traffic of the live-stock of the State, except in so far as the Inter-State Commerce Law is concerned, and

Whereas, It seems to be the tendency on the part of certain governmental and other officials to suppress facts relating to the above mentioned disease, and

Whereas, The stock-breeders of southwestern Virginia have met and appointed a committee to secure adequate laws for the control of these and other infectious diseases of animals, and

Whereas, Said stock-owners have recognized the fact that the veterinary profession of this State is the proper source from which to obtain reliable information in regard to animal diseases in this State, and has therefore appointed one of our members as a member of their committee, and furthermore, said committee asks for the assistance of our Association; therefore be it

Resolved, First, that we fully realize the necessity of proper laws to control and prevent the spread of contagious diseases, and that we deplore the secrecy practiced in such matters, at the expense of public funds and to the detriment of the true interests of the live stock industry;

Second, that this Association aid the committee of stock-breeders from southwestern Virginia in any way within its powers so to do;

Third, that a copy of these resolutions be sent to said committee of stock-breeders, and that these resolutions be spread upon the minutes.

W. T. GILCHRIST, *Chairman*.

After considerable discussion, the resolutions were adopted.

The time having arrived for the reading and discussion of papers, Dr. Faville, of Norfolk, read a paper on "Osteoporosis,"* and was followed by Dr. M. D. Hoge, Jr., M.D., of Richmond, with a paper on "Bone Softening."* The discussion following the reading of these papers was of considerable interest to the members. Dr. Hoge's paper was beautifully illustrated with microscopic specimens of affected bone, and the complete collection of specimens of osteoporosis and actinomycosis shown by Dr. Harbaugh fitted the papers well.

* These papers will be published in the April REVIEW.

Dr. Harbaugh read a paper on "Texas Fever,"* which was listened to with great interest. The specific micro-organism was nicely shown, as were also the ticks found upon the cattle affected. The discussion of this disease was of peculiar interest to the members, because of the location of the government quarantine line across the State. The results of experiments and observations to be made by Drs. Harbaugh and Niles during the next season will be awaited with interest.

At nine o'clock the Association adjourned to meet around the banquet table at Evenson's as the guests of Dr. Harbaugh. The hospitality of our President was greatly enjoyed.

At 10.30 P.M. the Association was called to order again to listen to a paper by Prof. E. P. Niles, of Blacksburg, Va., upon "Immunity."* This was followed by a general discussion of the subject of serum therapy.

After extending the thanks of the Association to Dr. Geo. Ben. Johnston for his very profitable and pleasant entertainment, and instructing the Secretary to compile the proceedings and papers of the various Association meetings for publication, the Association adjourned at two o'clock A.M., January 3, to meet in Norfolk in June.

The Association has grown from a weakling of two years ago to a healthy organization, and all the members realize that the mutual benefit derived from our meetings is without measure.

While in Virginia at the present time there is no legal veterinary profession, we hope and know that the influences emanating from our Association will ultimately secure for us the recognition that is our due.

GEO. C. FAVILLE, D.V.M., *Secretary.*

MONTREAL VETERINARY MEDICAL ASSOCIATION.

A regular meeting of the Association was held on Thursday evening Nov. 7, 1895, with the Honorary President, Dr. D. McEachran, in the chair.

The minutes of the previous meeting having been read and adopted, a case report by Mr. J. H. Patterson was presented for diagnosis.

The animal in question was a bay horse, five years old, weight 1,000 lbs. When called to see the case, found the animal in a recumbent position, unable to rise. Temperature 100.5°, pulse 46, respiration 12. When assisted to his feet,

* These papers will be published in the April REVIEW.

moved without difficulty and seemingly all right. The next day he was down again; was raised and placed in slings and received a laxative, followed by nerve tonics. In twenty-one days was sent home with no abatement of the symptoms. Was put to work, which he performed satisfactorily, but every morning had to be assisted to his feet. Some three months after he fell on the pavement, and being unable to rise was shot by a policeman. No post mortem was held, but it was the consensus of opinion of those present that the difficulty in rising was due to ankylosis of some of the vertebræ.

Mr. John Greer contributed a lengthy but carefully prepared paper on "Diagnosis and General Symptoms of Disease."

A prolonged discussion ensued on the subject of variations of the pulse in different animals and in those of the same species.

Dr. D. McEachran addressed the meeting on the subject of coughs as symptomatic of disease, with special reference to the horse.

Dr. M. A. Dawes, of the Health Department, followed with some good advice to the experiment committee.

The essayists for the next meeting were then notified, and the meeting adjourned. HARRI H. DELL, *Sec.-Treas.*

A regular meeting of the Montreal Veterinary Medical Association was held in the library on December 5, 1895. The president, Dr. M. C. Baker, occupying the chair. The roll-call showed a good attendance of members and visitors. The minutes of the previous meeting were read and approved.

A report was received from the experimental committee on some experiments with pilocarpine and eserine, the combination not having proven satisfactory in the cases under observation.

Mr. Chas. H. Higgins, B.S., presented a paper on "Bacteriology and its Practical Applications." He gave an extended historical resume of the development of bacteriological science, which development was largely due to the discovery and subsequent improvement of the microscope. The theories of immunity advanced by various investigators were each in turn enumerated and the fallacies of several were clearly demonstrated. Many interesting topics arose out of the discussion which followed, among them being inspection of milk and the propagation of tuberculosis; tuberculin and mallein, and the dosage of each.

Mr. John Greer reported a case of "Septic Aspiration Pneumonia" in a cow. The first symptom noticed was dimin-

ished lactation. Soon a swelling appeared on the left cheek over the region where Steno's duct discharges into the buccal cavity. This swelling increased until there was occlusion of the lachrymal duct and a bulging of the eye from the orbit.

Actinomycosis was suspected, but microscopic examination of the purulent matter in the swelling failed to verify the suspicion. Febrile symptoms developed, accompanied by chills, weak pulse, depression and diarrhoea, death occurring about four weeks after the first appearance of the swelling. The post mortem revealed a large abscess from the inferior maxilla with softening and necrosis of the adjacent tissues. The lungs contained multiple abscesses due to the inspiration of septic germs from the primary abscess of the jaw. A pneumonia had developed in addition. The term "Septic Aspiration Pneumonia" was very appropriate.

In Mr. Greer's opinion, which was concurred with by those present, had the original abscess been recognized early and subjected to proper treatment, the animal would have made a good recovery.

The case was an interesting one, and gave rise to considerable discussion.

The essayist for the next meeting was appointed, also a member to serve on the experimental committee.

HARRI H. DELL, *Sec.-Treas.*

A regular meeting of the Montreal Veterinary Medical Association was held in the library on December 19, 1895, the Honorary President, Dr. D. McEachran, in the chair.

Owing to the proximity of the holiday season the attendance was somewhat less than usual. The minutes of the previous meeting having been read and confirmed, Mr. C. H. Higgins requested that the Secretary be instructed to secure for the library the Experiment Station Record, also the reports of the Bureau of Animal Industry of the U. S. Department of Agriculture.

Mr. J. Anderson Ness, on behalf of the 1896 Journal Club, reported some interesting and successful experiments with barium chloride* as a therapeutic agent in the treatment of colic. Observations on several cases were reported in detail, which added interest to the report.

Mr. Fred. W. Kee then presented a paper, "Actinomycosis Bovis." Inasmuch as the disease is either increasing or is more promptly recognized than formerly the choice of the subject was

* Published elsewhere in this number.

a fortunate one, and the essayist dealt with the matter in a most pleasing manner. Particular emphasis was directed to the fact that many diseased animals which would be rejected as unfit for food in the larger cities, where a system of veterinary inspection exists, are nevertheless placed upon the markets elsewhere, and ultimately find their way into the food supply. A lengthy discussion followed the reading of the paper, the essayist ably defending his position.

Dr. Adami favored the meeting with some remarks on the nature of the disease in man, while Dr. McEachran then referred to the disease as manifested among range cattle in the Northwest.

Mr. E. H. Morris reported a rare case of surgical interference. Called to see a colt which, as the result of an accident, had lacerated one of the carotids,* he applied a ligature to the vessel and eventually was rewarded by a complete recovery, the nutrition of the area supplied by the vessel being effected by the collateral circulation.

Members were appointed to serve on the experimental committee, the essayist for the next meeting notified, and adjournment took place.

HARRI H. DELL, *Sec.-Treas.*

The Montreal Veterinary Medical Association met in the library of the Faculty of Comparative Medicine, January 15th. The chair was taken and meeting called to order by the President, Dr. Baker. Roll-call showed a good attendance of members. The minutes of the previous meeting were read and adopted.

It was decided to add to the library the Journal of the American Public Health Association and also those of the Public Health Department.

Mr. Harri Dell furnished the case report for the evening. The case was one of interest on account of its comparative rarity. The subject, an aged deerhound bitch, was brought to the hospital in a dying condition, with no history of previous illness, the only symptoms having been noticed being anorexia. Was declared by the man in charge to be well advanced in pregnancy, but physical examination revealed a large amount of fluid as the cause of distention. Death occurred during the night, and the

* Published elsewhere in this number.

post mortem brought to light the existence of extensive pathological processes.

The most worthy of notice were the presence of a large adenocarcinomatous growth of the liver, metastases in the lungs, peritonitis, and ulceration of the duodenum.

In the discussion following, Mr. Higgins stated that, curiously enough, Dr. Martin in an autopsy on a deerhound a few days previously had encountered a similar condition of the duodenum. This animal had been chloroformed on account of the existence of chorea.

Mr. S. Macnider presented a paper on "Navicular Arthritis and Neurectomy," describing the nature, symptoms and course of the disease and the indications for operation. A question as to the value of frog setons in the surgical treatment of this disease arose out of the discussion following, it being in the opinion of many of the members that if an affected animal be given the rest and hygienic surroundings that are necessary after the insertion of setons, but omitting the latter, the results would be as favorable.

Regarding neurectomy it was said to be a palliative treatment, and the feet of the animals after the operation should receive particular attention for obvious reasons.

Mr. J. J. McCarry promised a paper on post mortems, and Mr. J. Anderson Ness will furnish the case report for the next meeting. The members of the experimental committee were then appointed, and the meeting adjourned.

HARRI H. DELL, *Sec. Treas.*

WISCONSIN SOCIETY OF VETERINARY GRADUATES.

We have received a very full and interesting report from Secretary Clark of the meeting on Feb. 5th, together with the papers presented, but on account of the lateness of receipt and our crowded pages, publication is necessarily deferred until the April number.

JAMES M. REED, V.S., of Mattoon, Ill., read a paper on "Ringbone," before the meeting of the Illinois Veterinary Medical and Surgical Association, held at Decatur, Ill., Jan. 7.

CORRESPONDENCE.

PENNSYLVANIA STATE BOARD OF VETERINARY
MEDICAL EXAMINERS.

PHILADELPHIA, Feb. 7, 1896.

Editor American Veterinary Review:

DEAR SIR.—The State Board of Veterinary Medical Examiners of Pennsylvania wishes to announce that the second stated meeting for conducting an examination for applicants will be held at 3452 Ludlow Street, Philadelphia, on the third Monday in April next.

The Board would suggest to the applicant to notice the list of subjects mentioned in section 6 of the Act concerning the examination, and, if possible, to notify them previously of his intention to pass the examination.

W. H. HOSKINS, *Secretary*.

3452 Ludlow St., Philadelphia, Pa.

S. J. J. HARGER, *President*, 205 N. 20th St., Philadelphia, Pa.

AS TO THE USE OF TETANUS ANTITOXIN.

NEW YORK, Feb. 5, 1896,

Editor American Veterinary Review:

DEAR SIR.—I read in the last issue of your valued and most interesting REVIEW the report of a case of tetanus cured with the antitoxin made at the New York Pasteur Institute, said case having been treated and reported by J. S. Lamkin, D.V.S., Yonkers, N. Y. Dr. Lamkin says in this article that he came to the Institute and asked whether a dose of dry antitoxin which had been diluted two days previous could be safely used, and that he received the answer that he could make use of same without any danger. He used this stale dilution and it caused a large swelling in the neck of the horse, which had not disappeared a week later. Upon investigation I find that the assistant to whom Dr. Lamkin applied for information replied that the preparation could be safely used the same day it was diluted if it was kept "in a cool and dark place," but that no such advice was given as to lead him to inject a solution made two days before time of use. It is quite likely there was some mistake, and that the Doctor did not fully understand what was told to him. The circulars and directions which we send out with the antitoxin are such that they should eliminate all chance of injecting such a stale solution. Dr. Lamkin states that the previous injections

did not produce any evil effects, and notwithstanding the unpleasant effects resulting from this error, the animal recovered from an attack of tetanus which the Doctor thought would prove fatal, he having advised the use of antitoxin as the only chance for recovery.

With the exception of this mistake, I wish to thank Dr. Lamkin for reporting this case and to mention the New York Pasteur Institute as the source of supply of the antitoxin.

Yours sincerely, PAUL GIBIER, M.D.

SOME ERRORS IN PROOF-READING.

MAMARONECK, N. Y., Feb. 5, 1896.

Editor of American Veterinary Review:

In the February issue of the REVIEW, on page 719, Dr. W. F. Derr, in his report of a "Complicated Case," says, "I then gave him fl. ex. can. ind., half pint; fl. ex. belladonna, one ounce." Were this all I would take it that the "half pint" was an error on the part of the printer, but further on he states that "gave him one and a half pints raw oil and added half pint doses fl. ex. nux vom., every four hours." I can easily believe that the patient would survive one and a half pints of raw oil, but I am still thinking how many half-pint doses of nux vomica would have been necessary to prepare him for a post mortem. I do not wish to reflect on the REVIEW by my remarks, but I could not let that go by without some mention. I do not think Dr. Derr meant us to believe that, and therefore attribute it to the uncertainty of printers' ink.

Yours most sincerely, C. HENRY DOEPEL, D.V.S.

[The correspondent has correctly guessed the cause of the error complained of—it was the careless proof-reading of the medical reviser. The doses were indicated by the usual symbols, and were mistaken in the composing room. If any further explanation is necessary we will state that Dr. Derr wrote the dose of the fluid extract of cannabis indica as half an ounce; fluid extract of belladonna, two drachms; and of nux vomica, half a drachm.—ED.]

TREATMENT OF OSSIFIC DISEASES OF JOINTS BY HYPO- DERMIC INJECTIONS OF TINCTURE OF IODINE.

BEAVER DAM, WIS.

Editor American Veterinary Review:

An article under the above heading appeared in the April and May number of the REVIEW on page 51. After reading the article, I determined to try it when an opportunity was presented.

July 1st a three-year-old colt was brought into the hospital. He had a medium-sized bone spavin, and had been lame about

four months. The owner did not want to have the colt fired, and I decided to try hypodermic injections of tincture of iodine.

The animal was cast, and after the part was prepared four drachms of tincture of iodine were injected at four different points over and around the spavin. The directions for after-treatment were carefully followed. There was but little swelling after the operation, and in two weeks the colt was turned out.

August 17th the enlargement was more marked, and the colt was still quite lame, and the tincture was injected again. After two weeks the lameness persisted, and a strong blister of mercuric iodide was applied, and the colt confined in a single stall for three weeks.

September 28th the exostosis was fully twice as large as at the beginning of the treatment, and very lame. I then fired the colt severely.

Have not seen the case since, and do not know the final result.

W. G. CLARK, M.D.C.

PROSECUTING UNDER THE OHIO LAW.

WASHINGTON C. H., O., Feb. 13, 1896.

Editor American Veterinary Review:

DEAR SIR:—In the columns of your REVIEW in the past there has been published a full text of the law regulating the practice of veterinary medicine in this State. There has been great diversity of opinion among the members of this Association as to the utility of this law, but at the last annual session a committee on law, composed of Dr. W. H. Gribble, Dr. W. R. Howe and Dr. J. D. Fair was appointed. Said committee had David R. Dearth arrested in Dayton, Ohio, Feb. 11, 1896, charged with unlawfully practicing veterinary surgery. He was convicted and fined ten dollars and costs, the minimum fine for first offense. Other members are requested to take courage and try their hand at it, even if a test case must be carried to the Supreme Court.

W. H. GRIBBLE, *Secretary*.

OBITUARY.

Dr. Wm. T. I. McLaughlin, a graduate of the New York College of Veterinary Surgeons, occupying the position of meat inspector at the Jersey City abattoir, under the Bureau of Animal Industry, died at his residence in that city on Jan. 31, from phthisis, aged thirty-two years.

The mother of Dr. William D. Gearhart, of Pittsburgh, Pa., died at his residence in that city the 1st of February.

NEWS AND ITEMS.

W. H. GILBERT, V.S., of Leesburg, Ohio, sends the REVIEW a long article stating that he has by hard study and much experiment discovered a sure cure for parturient apoplexy. His article describes nothing that is not already known, and as his remedy is withheld, we also withhold the publication of his paper as being of no value except to announce his discovery. He promises to divulge his remedy during the present year, and we will then be pleased to accord him all the space he may require. If it is all that he claims for it his name will be unforgotten at this date in the next century.

CENSUS OF BROOKLYN HORSES.—The police force of Brooklyn has just completed a census of the horses and stables of that city, for the information of the veterinary department of the Board of Health. According to their figures there are 7,948 public and private stables and 31,580 horses, having 11,626 owners. The locations of the stables and the names of the owners will be made a matter of record in the health department, and will form the basis of a system of inspection to be made hereafter by the Health Office veterinarians. So far as is known, Brooklyn and Paris are the only cities having such an enumeration. Previous to the invasion of the trolley there were about 12,000 horses used upon the street railroads, and their substitution has considerably decreased the equine population of the City of Churches.

SIDE-LINES.—Almost every veterinary surgeon needs among his paraphernalia reliable side-lines for casting horses for various operations, especially for castration. Where to obtain them properly constructed has been somewhat embarrassing to many, and therefore we take pleasure in referring our readers to the advertisement of R. W. Elder, 121 West Penn Street, Germantown, Pa., who will send them anywhere on receipt of a very moderate price. We cheerfully recommend him and his article.

VETERINARY HYPODERMIC TABLETS.—Attention is called to the fact that the Buntin Drug Co., of Terre Haute, Ind., who have for a number of years made a specialty of supplying hypodermic tablets of the most popular alkaloids and other concentrated medicines used by veterinarians, have just issued a new and revised price-list of their goods, which they will be glad to

mail to any address upon application. The new price-list will appear in their regular advertising space next month.

COMMENCEMENT EXERCISES OF THE AMERICAN VETERINARY COLLEGE.—The graduating exercises of this college will be held this year, as for many years past, at Chickering Hall, 18th Street and Fifth Avenue, New York City, on Wednesday, March 25th, at 8 P.M.

ON January 4 last, a horse attached to a cart backed over the high cliff of the river bank of Niagara Falls, N. Y., and fell a distance of over a hundred feet. The driver reported the horse killed, but men who scrambled down found that outside of a few cuts and scratches the horse was all right. Some boards were thrown down, a temporary shelter built, and after a ten days' vacation from the cart, which the horse no doubt appreciated, he was pulled up by ropes and returned to his stable.

DOMESTIC ANIMALS OF THE NATION.—According to the Government census there are in the United States 16,893,318 horses, valued at \$36.29 per head, or \$477,730,580; mules, 24,335,108, valued at \$111,297,834; milch cows, 16,500,000, valued at \$21.87 per head, or \$363,000,000; oxen and other cattle, 34,500,000, valued at \$14.06 per head, or \$483,000,000; sheep, 42,500,000, valued at \$1.58 per head, or \$67,000,000; swine, 44,000,000, valued at \$4.97 per head, or \$219,500,000. When to these enormous figures are added the vast number of dogs (which form a source of considerable revenue to the veterinarian), the immensity of our clientage becomes apparent.

EXPORTATION OF HORSES.—A prominent Chicago horse-dealer states that a year and a half ago there were only five foreign buyers in that market, but from day to day they increased until the number during last March and April was close to fifty. And this trade is deemed to be in its infancy by competent observers.

ALBERT BABB, A.B., M.D.C., of Springfield, Mo., has had the compliment of a *verbatim* reproduction in the *Veterinary Journal* (England) of the admirable article contributed by him to a recent issue of the AMERICAN VETERINARY REVIEW, entitled "The Cæsarian Operation in the Cow."

ENGLISH HORSE TRADE.—The number of horses exported from this country during the eight months ending August 31

was 12,310, against 9,355 in the corresponding period last year, the value having been £345,024, against £290,852. There were 312 stallions, 2,519 mares, and 9,478 geldings exported. The number of horses imported was 22,755, against 15,614. In this year's figures there were 583 stallions, 6583 mares, and 15,589 geldings, the value having been £605,586, against £360,913 last year. The greater part of the increase in numbers was from the United States and Canada.—*Veterinary Journal (England.)*

GOVERNMENT VETERINARY POSITIONS.—A dispatch from Washington, D. C., dated February 14, says: The United States civil service commission will hold examinations on March 10, in Boston, New York, Buffalo, Philadelphia, Cincinnati, Kansas City, Chicago, Los Angeles and San Francisco for the positions of meat inspector, stock examiner and tagger. For all of these positions the supply of eligibles is not equal to the demand. Applicants for the meat inspector examination must be graduates of some recognized veterinary college, and applicants for the stock examiner examination must have had at least three years' experience in handling meat-producing animals.

FIRE IN A VETERINARY HOSPITAL.—On Feb. 12, fire in the veterinary infirmary of Geo. H. Berns, D.V.S., 74 Adams Street, Brooklyn, did damage to the amount of \$1,500, fully covered by insurance. The insurance patrol threw covers over his large cases of instruments and books, and they were practically unharmed. It originated from an overheated stove in the stableman's apartments.

IN the discussion of the agricultural appropriation bill before the House on Feb. 17th an amendment was adopted setting aside \$42,360 for another edition of "Special Report on the Diseases of the Horse."

J. J. MONAGHAN, D.V.S., of Holyoke, Mass., has recently been appointed veterinarian to the Fire Department of that city.

DR. U. B. SMITH, of Basil, Ohio, was elected Secretary of the Ohio State Board Veterinary Examiners at the last meeting of said Board.

DR. H. A. PRESSLER, of the Chicago Veterinary College, has located in Fairburg, Ill.

REVIEWS WANTED.

Dr. A. W. Bitting, of Purdue University, Lafayette, Ind., is desirous of obtaining Volume I of the AMERICAN VETERINARY REVIEW, for which he will pay ten dollars.

President Jno. P. Haines, of the American Society for the Prevention of Cruelty to Animals, 10 East Twenty-second Street, New York City, wishes Nos. 5 and 12 of Volume XVII., and Nos. 5 and 7 of Volume XVIII., for which twenty-five cents per number will be paid.

COMMUNICATIONS RECEIVED.

Communications are acknowledged from the following: W. V. Bieser, D.V.S., W. Chas. Covey, D.V.S., Geo. Jobson, V.S., Samuel S. Buckley, M. J. Treacy, U.S.A., W. F. Derr, V.S., Geo. G. Van Mater, M.D., D.V.S., W. L. West, V.S., J. P. Turner, U.S.A., Harri H. Dell, James M. Reed, V.S., C. W. McCracken, V.S., W. H. Gilbert, Geo. C. Faville, D.V.M., M. D. Hoge, Jr., M.D., W. H. Harbaugh, V.S., E. P. Niles, D.V.M., H. H. Rusby, M.D., Robert Robb, V.S., James A. Waugh, V.S., H. D. Fenimore, D.V.S., Roscoe R. Bell, D.V.S., L. L. Conkey, V.S., F. C. Wilkinson, V.S., W. G. Clark, D.V.S., C. H. Sweetapple, V.S., F. L. Morgenroth, M.D.C., T. W. Watson, V.S., J. R. Kelso, D.V.S., J. P. Laws, D.V.S., H. S. Perley.

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